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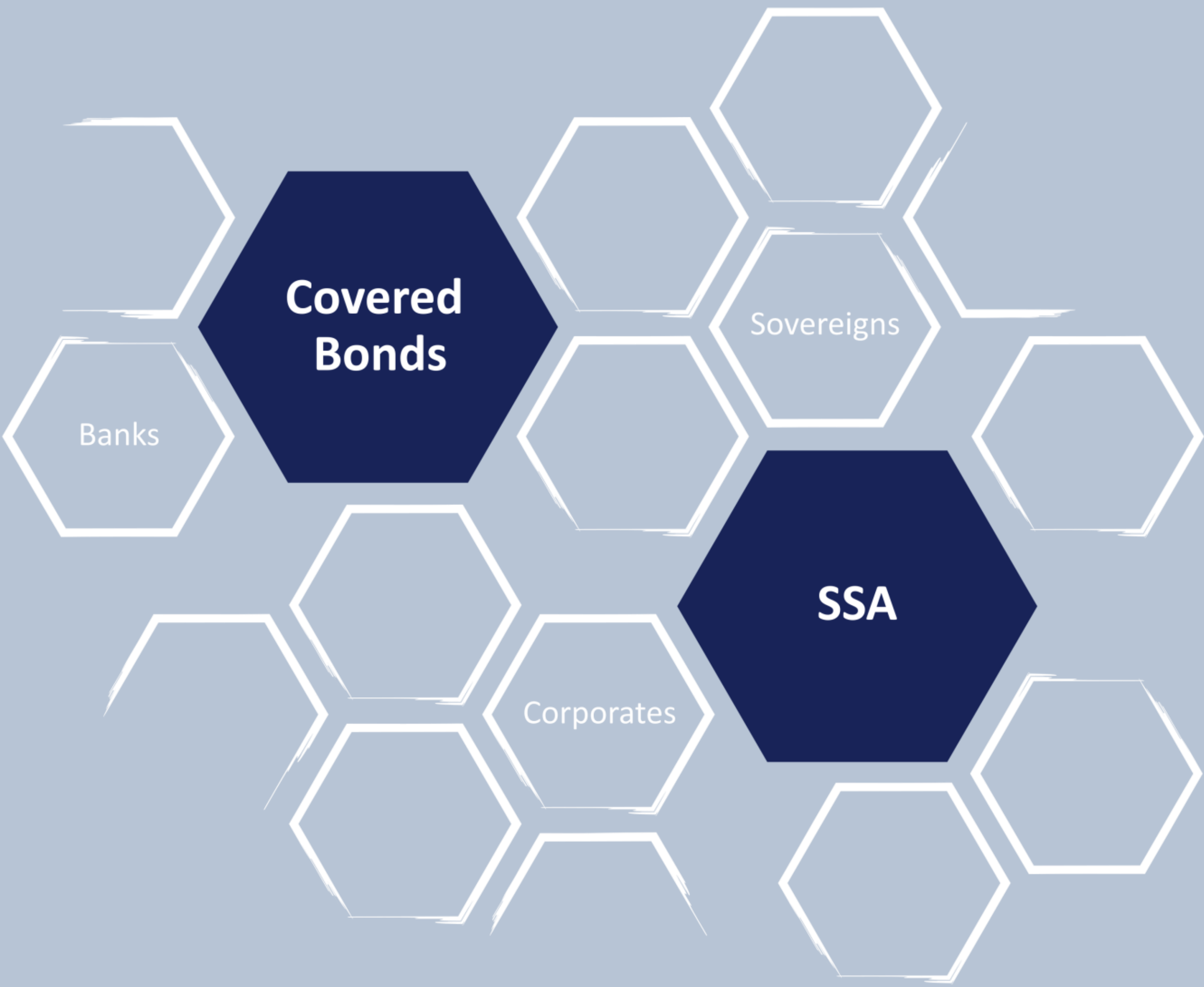

Dear readers,

We shall be taking a short break over Easter.

We wanted to let you know today that **no** edition of our weekly publication will appear on either April 20 or April 27.

As such, the next edition of our Covered Bond & SSA View will be published on **Wednesday, 4 May 2022**, via the familiar channels.

Stay healthy!

Your **Markets Strategy & Floor Research** team

Covered Bond & SSA View

NORD/LB Markets Strategy & Floor Research

13 April 2022 ♦ 14/2022

Investment strategy recommendation and marketing communication
(see disclaimer on the last pages)

Finanzgruppe

Agenda

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Market overview
Covered Bonds
Author: Dr Frederik Kunze

Primary market – Easter break has not yet begun
In the last five trading days, three issuers approached investors. Last Wednesday, Deutsche Pfandbriefbank (ppb) placed a benchmark bond issue worth EUR 750m (4y) in the market. The deal started in the ms +5bp area and was eventually priced at a re-offer spread of ms +1bp (NIP: +2/3bp). At 76%, the highest share of the total volume went to investors from Germany, Austria and Switzerland. Based on investor type, banks (46%) were the dominant group ahead of fund managers (34%). Central banks/OI accounted for 15%. The Münchener Hypothekenbank (MUNHYP) green Pfandbrief deal, which followed on Thursday, is certainly worth highlighting (cf. NORD/LB Issuer View of 6 April 2022). The financial institution successfully placed a volume of EUR 1bn (final order book: EUR 2.7bn) in the market and achieved tightening of five basis points as part of its marketing compared with the guidance (ms +7bp area), reflected in a re-offer spread of ms +2bp (NIP: +2bp). This was followed by two rather quiet trading days, after which Austria's Raiffeisenlandesbank Niederösterreich-Wien (RLB NÖ-Wien) took advantage of a window of opportunity to place a benchmark bond issue. The order book for this fresh supply of covered bonds opened in the ms +12bp area. The final spread was ms +8bp, with the order book totalling EUR 1.6bn. The volume amounted to EUR 750m, which means that the five EUR benchmarks from Austria placed in the year to date (2022) add up to EUR 3.25bn in total.

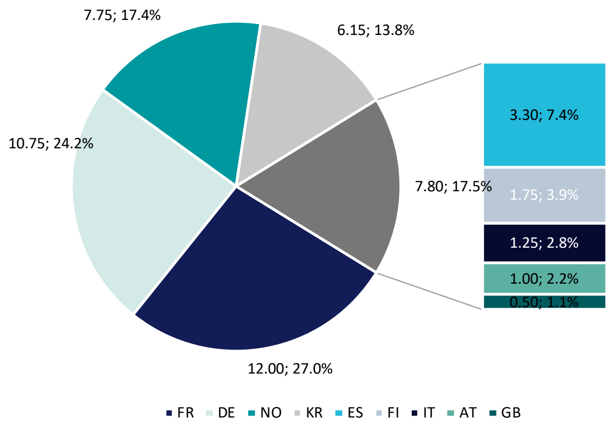
Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
RLB NÖ-Wien	AT	12.04.	XS2469466390	5.0y	0.75bn	ms +8bp	- / Aaa / -	-
MUNHYP	DE	07.04.	DE000MHB30J1	7.8y	1.00bn	ms +2bp	- / Aaa / -	X
pbb	DE	06.04.	DE000A3T0YH5	4.0y	0.75bn	ms +1bp	- / Aa1 / -	-

Source: Bloomberg, NORD/LB Markets Strategy & Floor Research, (Rating: Fitch / Moody's / S&P)

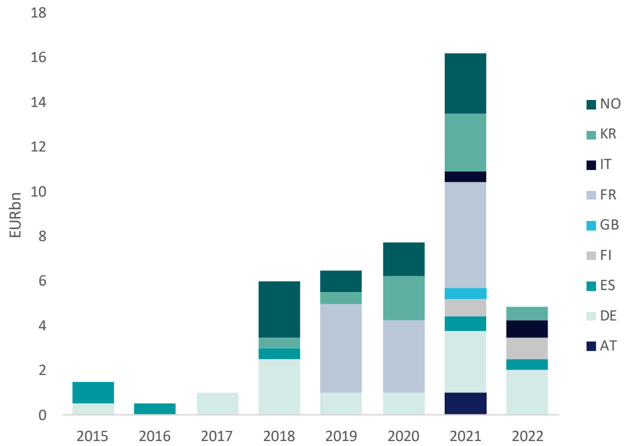
Dynamic ESG sub-market – green Pfandbriefe are one step ahead in 2022
We already reported on the dynamic developments in the sub-market of ESG covered bonds a few weeks ago and mentioned growth in green Pfandbriefe (cf. Covered Bond & SSA View of 16 February 2022). Following the launch of its new bond worth EUR 1bn, MUNHYP has increased the volume of green Pfandbriefe issued so far in 2022 to a total of EUR 2bn. This means that German Pfandbriefe account for the highest share of ESG bond issues in the year to date (2022). Finland is in second place. Here, OP Mortgage Bank recently placed a successful benchmark bond issue (also worth EUR 1bn). In relation to the total market for ESG benchmark bond issues, France (volume: EUR 12bn, share: 27%) remained the market leader ahead of Germany (EUR 10.75bn, or 24%) and Norway (EUR 7.75bn, or 17%). Based on ESG type, green covered bonds (EUR 30.25bn, or 68%) are the most common. The category of social bonds accounts for EUR 11.9bn, or 27%, while the remainder (EUR 2.3bn, or 5%) of the covered bond ESG category is attributable to sustainability. Overall, it is our view that the market for ESG covered bonds in benchmark format is set to accelerate slightly during the remaining months of this year.

Green covered bonds – further adjustments required; please refer to the current issue of BOND*GUIDE* with its focus topic being Green & Sustainable Finance
In the context of EU taxonomy and the resultant requirements regarding green covered bonds in the long term, based on the EU green bond standard (EUGBS), issuers have some catching up to do. We expect more and more issuers to report on their progress in terms of adapting their own frameworks in line with the EU taxonomy in the coming months and quarters. This is certainly something to be welcomed and, to this extent, the EU taxonomy could also be understood as a catalyst for the green bond market in general and the green covered bond market in particular. However, certain aspects have yet to be dealt with, such as harmonisation and/or adaptation of impact reporting. Our article in the current **BOND*GUIDE*** picks up on this idea by focusing on the topic of Green & Sustainable Finance (link to BOND*GUIDE* publication; in German language).

ESG – distribution by jurisdiction (EUR bn)



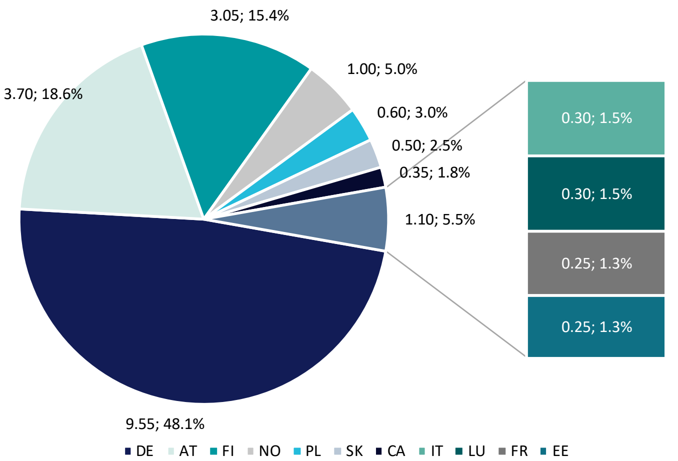
ESG – issuing trend by year (EUR bn)



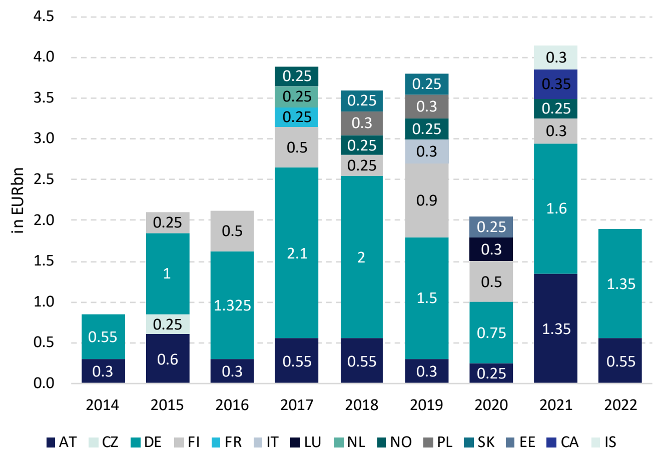
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

Oldenburgische Landesbank successfully places EUR sub-benchmark bond issue
Oldenburgische Landesbank (OLB) approached investors with its second syndicated Pfandbrief issue on 6 April 2022. As was previously also the case in March 2021, the total amount issued was EUR 350m. The oversubscription ratio for this fresh bond (7y, 2021: 10y) was 1.7x (order book: EUR 580m) and higher than the level in 2021 (1.3x). Following a start to the marketing phase at ms +14bp, the final re-offer spread was ms +13bp. Allocation of the mortgage Pfandbriefe mainly went to German accounts (72%), followed by the Nordic countries (15%) and Austria (11%). The highest share based on investor group went to banks (63%), ahead of asset managers & funds (23%) as well as central banks/OI (14%). The EUR sub-benchmark segment now totals seven bond issues in the current year, comprising five German bond issues (volume: EUR 1.35bn) and two deals from Austria (EUR 550m). We expect further bond issues in the EUR sub-benchmark segment during the remaining months of this year and assume that Germany and Austria will remain the driving force in this segment during the coming quarters. However, we also remain optimistic about possible bond issues from smaller sub-benchmark jurisdictions such as Finland and Norway as well as Poland and Slovakia.

SBMK – distribution by jurisdiction (EUR bn)



SBMK – issuing trend by year (EUR bn)



Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB Capital Market Spotlight on 25 April 2022 at 3.00 pm – join us in taking a look at two active issuers in the market for ship covered bonds

Based on, for example, data from the ECBC annual statistics as at year-end 2020, the global market for ship covered bonds amounting to a volume of EUR 7.9bn is a rather small sub-market (public sector: EUR 286bn, mortgages: EUR 2,608bn). Yet, this insight does not immediately make the segment of covered bonds secured with ship financing unattractive. As a matter of fact, we would see this as a niche market worth closer consideration by some investors. We are therefore delighted to be presenting the segment of ship covered bonds as well as two active issuers in this market during a virtual client event. As part of this interactive session, brief market overviews given by the research units of NORD/LB will be followed with presentations by issuers Hamburg Commercial Bank (HCOB) and Danish Ship Finance (DSF) from Denmark. Both of these issuers from the two different jurisdictions issue their ship covered bonds on the basis of national legislation. The HCOB cover pool worth EUR 2,279m provides cover for Pfandbriefe worth EUR 1,938m (reporting date: 31 December 2021). The DSF cover assets totalled DKK 9,738m as at year-end 2021 (EUR 1,311m). The covered bonds are worth DKK 8,033m (EUR 1,081m), with DSF represented in the iBoxx EUR Covered with one benchmark bond issue. In addition, EUR benchmark bonds (EUR 500m) will mature in September 2022. This, in our view, increases the probability of a fresh benchmark bond issue in the coming twelve months. Furthermore, HCOB recently spoke in favour of covered bonds being assigned a more important role, something that, in line with the business model, may also indicate the possible issuance of ship covered bonds in the benchmark segment, in our opinion. If you are interested in the NORD/LB Capital Markets Spotlight: Danish & German Ship Covered Bonds, please contact us directly or via event-markets@nordlb.de.

How quickly is the ECB's influence on the covered bond market waning?

Last week, our weekly publication already addressed the implications of the ECB's monetary policy on the covered bond market and the ECB's order behaviour in the primary market, in particular (cf. Covered Bond & SSA View of 5 April 2022). In today's issue of our weekly publication, we examine the end of net purchases under the PEPP and tomorrow's ECB meeting in two cross-asset articles. While the end of PEPP net purchases is of secondary relevance to the covered bond market, the adjustments to the monetary policy steering parameters – APP, TLTRO, tiering and key rates – have greater relevance. Since we are inclined not to expect concrete adjustments to be announced in tomorrow's meeting, our focus is more on the ECB's June meeting. Nevertheless, past experience has shown that a press conference and/or Q&A session have the ability to alter the sentiment and change market expectations. We would not therefore label tomorrow's meeting as a non-event. Either way, the Eurosystem's influence on the covered bond market will wane over time. This development is measurable, both in terms of the order behaviour of the ECB and the CBPP3 trend as part of securities purchases and reinvestments. In our understanding, the extent to which the supply side will experience an easing will be reflected by (voluntary) repayments related to TLTRO III tender as well as the own-use covered bonds accepted by the ECB as collateral. However, this is more likely to be a topic in several months or quarters rather than weeks, and consequently a topic for 2023.

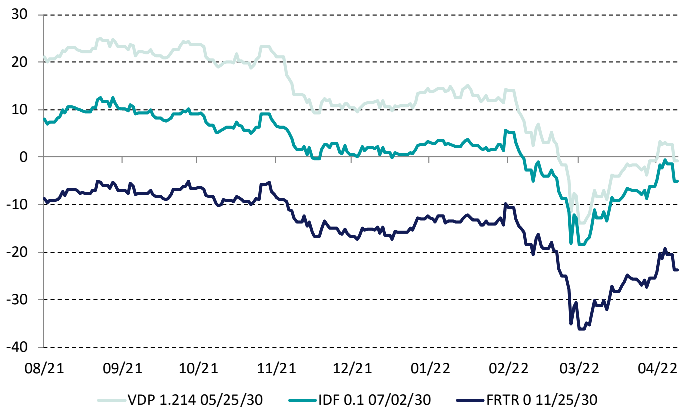
Market overview
SSA/Public Issuers

Authors: Dr Norman Rudschuck, CIIA // Jan-Phillipp Hensing

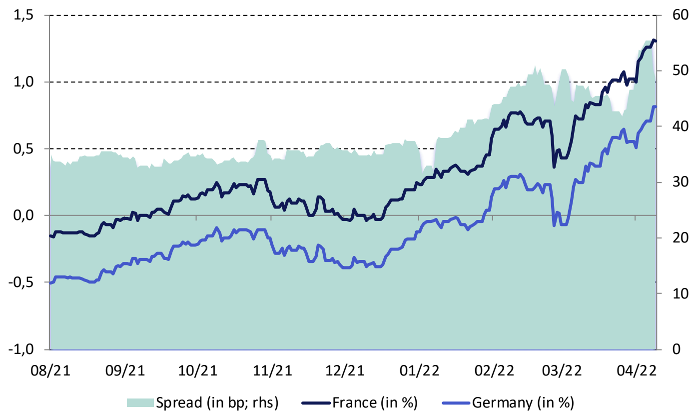
France voted – the market responds

On Sunday, the first round of the French presidential election produced the results forecast and which many market players were hoping for. Emmanuel Macron, the incumbent with pro-European views, asserted himself in the first round of the French election. He will go into the run-off stronger, yet not as the clear favourite he was in 2017. This second round of the election will be held on 24 April 2022. Macron will once again face Marine Le Pen, the candidate put forward by the far-right National Rally (Rassemblement National, RN). The markets – and also the European Idea – responded to the election result with relief. Investors in the bond market were also appeased as spreads on French bonds tightened.

Spread movements – VDP and IDF (vs ms, in bp)



Spread movements – Bunds vs OATs (10Y)



Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

Elections in France always trigger spread movements like nowhere else

The reputation of pollsters had suffered considerably in the wake of Trump and Brexit. However, this time, election results were very close to the polls published in advance. Emmanuel Macron received 27.8% of the vote and Marine Le Pen 23.2%, followed by Jean-Luc Mélenchon (22.0%). The latter's fortunes were boosted just before the election, a clear parallel with 2017. The results in 2017 were as follows: Macron (24.0%), followed by Le Pen (21.3%), François Fillon (20.0%) and Mélenchon (19.6%). It could hardly be a closer contest, going into the run-off. Although relief about Macron succeeding was predominant in the international capital markets, the results must not hide the fact that in 2017, Le Pen achieved the best ever result in the history of the then Front National – and has actually surpassed that result in 2022. In just under two weeks, the second ballot will take place between Macron and Le Pen. The incumbent is not entering the race as the clear favourite. In 2017, he was in a position to expect a two-thirds majority. Yet Macron's Achilles heel is elitism and arrogance. Le Pen presents herself (sorry, but rather nauseatingly) as down-to-earth and humble. She is almost certain to receive the votes of far-right politician Zemmour. He has called on his supporters to vote for Le Pen in the second round. In addition, she is currently fishing for votes at the far left among extremists.

Bond markets – effective indicators of fever pitch and benchmark for measuring risk
The bond markets responded to the election results with relief. In recent weeks and months, the spread between German and French government bonds had noticeably widened before stabilising at a high level. In the meantime, the yield gap in the long maturities range (10Y) exceeded 55 basis points. Despite the steady poll ratings for Macron, the threat to political stability, from both the far right and left, prevented tightening. In contrast with 2017, no precipitous decrease was observed. Of course, spread movements in 2022 are currently also determined by other influences: the gradual withdrawal of the Eurosystem from net purchases and the flight to safe havens in view of the war of aggression against Ukraine. We therefore also take a look at the segment of sub-sovereigns. The movements described above are identifiable in this segment as well – initial widening at the start of the "hot phase" of the election campaign, with an immediate turning point in the curve after the election. Looking at the City of Paris (VDP) and Île-de-France (IDF), the two issuers in this segment which the ECB considers as part of its purchase programmes, a sharp decline in spreads is also evident – irrespective of the time to maturity of the relevant bonds. Although hardly imaginable now, it is true: in 2017, we had to point to the fact that movements, in particular in the segment of French agencies, could be used as a good indication of the Frexit probability priced in by the market – in other words and in all seriousness, France possibly leaving the EU. Accordingly, fears of a phase of political instability in France decreased significantly after the first round of the election in that year. At present, spreads for French agencies are more stable in this segment and are no longer much of an indicator of how jittery the markets are. In the run-up to the second round of this year's election in France, slightly increased volatility is nevertheless likely to persist. For the time after the run-off, we expect further moderate tightening. However, irrespective of this, the picture for French issuers is likely to remain heterogeneous after the election. In our view, this is primarily linked to the fact that even if Macron wins the election, the extent to which he will be able to put his political ideas into practice is not yet sufficiently clear.

KfW 2021 – high level of demand for development loans
New business at KfW totalled a volume of EUR 107.0bn in 2021 (2020: EUR 135.3bn, 2019: EUR 77.3bn). It was below the level of the 2020 crisis year, but considerably above the average recorded in the years prior to the coronavirus. The reason for the decrease in new business was a significantly reduced demand for coronavirus-related aid, both in Germany and the international business units. Business in Germany accounted for the highest share of new commitments with a volume of EUR 82.9bn (2020: EUR 106.4bn, 2019: EUR 43.4bn). According to KfW, demand was high for development loans relating to energy-efficient residential buildings, commercial energy efficiency and renewable energy. KfW Capital commitments totalled EUR 0.5bn in 2021. The trend in the earnings position, with consolidated income of EUR 2,215m in financial year 2021, was considerably stronger in the wake of the economic recovery than in the previous year (EUR 525m). According to KfW, this mainly resulted from an exceptionally strong valuation result, driven by the reversal of risk provisions as well as significant increases in value in the investment portfolio. In the previous year, the valuation result was markedly affected by the economic impact of the coronavirus crisis on KfW's lending and investment business. The regulatory capital ratios were minimally down in view of more stringent regulatory requirements, at 23.9% for both the total capital ratio and the tier 1 capital ratio.

Positive start to the 2022 development aid year

New business at KfW saw a strong start in 2022, with EUR 22.3bn recorded as at 28 February 2022 (2021: EUR 15.0bn). At EUR 19.4bn, new commitments in domestic promotional business, in particular, significantly exceeded the previous year's figure (EUR 12.2bn), according to KfW. In almost all areas of development and especially in the Federal Funding for Efficient Buildings (Bundesförderung für effiziente Gebäude, BEG), the number of new commitments was higher than in the same period of the previous year. In view of the huge number of applications received in January 2022, which resulted in the full utilisation of federal funds, the BEG programme was temporarily suspended. Since 22 February 2022, it has again been possible to submit applications for energy-efficient redevelopment. Loan applications for newbuilds will be accepted again from 20 April 2022 onwards. Financing on behalf of the German federal government to provide energy security in Germany in view of the war in Ukraine also contributed to the rise in new business. Stefan Wintels, CEO of KfW, explained: "The demand for KfW promotion is once again very high at the start of 2022. This year will be no less challenging. The ongoing pandemic and the terrible war in Ukraine are expected to place a considerable strain on the economy and on society. KfW will therefore continue to assume its responsibilities as a transformative and promotional bank through its programmes and financing."

Primary market

Easter is fast approaching and accordingly, things are calming down in the primary market. In this trading week, we did not therefore observe many new bond issues – to be precise, there was only one. In the last issue of this publication, we already mentioned that the relevant deal had been announced: last Wednesday, the Council of Europe Development Bank (ticker: COE) was ready and placed a 7y bond issue worth EUR 1bn (WNG) at ms -13bp (guidance: ms -13bp area). The order book for this deal amounted to EUR 975m. The transaction comprised a social inclusion bond (SIB), with proceeds set to contribute to mitigating the social consequences of the war of aggression against Ukraine. Financial support is to be provided to member states when welcoming Ukrainian refugees and for their integration. This was the COE's eighth bond issue in SIB format since 2017 – with a total volume of EUR 5bn to date. It was the first bond issue under the updated Social Inclusion Bond Framework (updated in March 2022). Demand from SRI investors for the transaction was particularly high, with a pro rata share of 90% of the total volume allocated to these investors. The regional analysis revealed that the highest share went to France at 35%, followed by the Benelux countries (25%) and Germany/Austria (16%). The remaining 24% were divided between the Nordics, the USA, Asia and other European countries. Yesterday, Tuesday, Saarland completed a tap issue, increasing its SAARLD 1.02% 05/20/30 bonds at ms -11bp (guidance: ms -11bp area). The order book amounted to EUR 250m, which represents an increase of EUR 200m (WNG) at a bid-to-cover ratio of 1.25x. In addition, a mandate also came from the Bundesland of Rhineland-Palatinate for a 30y bond in the amount of EUR 500m. Before signing off for the two-week Easter break, we would like to draw attention to the next auction of the European Union somewhat earlier than we usually do. It will take place on the fourth Monday of the month, as usual, with the next auction therefore taking place on 25 April 2022. We will be providing you with a summarised comment on activities in the primary market, as per usual, in the next issue of our publication in May. In the meantime, we wish you a pleasant Easter break.

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
COE	SNAT	06.04.	XS2468525451	7.0y	1.00bn	ms -13bp	AA+ / Aa1 / AAA	X

Source: Bloomberg, NORD/LB Markets Strategy & Floor Research (Rating: Fitch / Moody's / S&P)

Cross Asset
First ECB meeting after the end of the PEPP: (Not) a non-event!?

Authors: Dr Norman Rudschuck, CIIA // Dr Frederik Kunze

Tomorrow's ECB meeting on 14 April: change in monetary policy overshadowed by the new era

Following the formal end of net purchases under the PEPP, the focus of market observers with regard to monetary policy in the Eurozone is increasingly shifting to the control parameters of the remaining (net) APP purchases, the increases in the central bank's reference interest rates and at the moment to the unconventional instruments TLTRO III and tiering. Nevertheless, the significance of the PEPP portfolio beyond the end of net purchases should not be underestimated. However, attention has for some time now no longer been focused solely on the question of how the ECB will initiate the change in monetary policy but far more on what implications the new era triggered by the escalation of the conflict in Ukraine will have for real economic activity, inflation and the stability of financial markets as a whole. In particular, consideration must be given to the inflationary pressures resulting from the dramatic developments. Not surprisingly, the implications and knock-on effects of the war of aggression against Ukraine will be a high priority for tomorrow's upcoming presentation of the decisions made within the scope of the recent ECB meeting and the discussions preceding these within the Governing Council. Nevertheless, the monetary authorities in Frankfurt must not forget their role, fulfilment of which is facing rapidly increasing challenges in terms of inflation.

Minutes of the March meeting: positions in the ECB's Governing Council fuelling expectations of higher rates

From the experiences of recent years, we would not like to play down the fundamental significance of minutes of ECB meetings for market participants. Nevertheless, looking at the recently published ECB minutes, we would definitely speak of their having an unusually strong impact on expectations on financial markets. Ultimately, the minutes of the March meeting revealed that it is entirely realistic to assume that once again, a more restrictive course by the Central Banks was anything but excluded (see NORD/LB Fixed Income Special dated 10 March for details of the ECB decision). In particular, the reference to data dependence and the lack of information about a specific end to the APP has a "dovish" origin in our opinion. The fact that the minutes definitely revealed some controversy with respect to the discussion about the appropriate date for ending the APP and initial rate rises against the backdrop of the increasingly ominous second round effects (in the form of wage increases, among other things) was taken by financial market participants as an indicator of a more rapid change in interest rates. At present, the market is pricing in an increase of around 68bp for mid-December 2022 on the basis of the implied policy rate (-0.584%). On 6 April, the day before the minutes were published, a delta of +56bp was still recorded here. On 11 March, the day after the ECB meeting, the market-implied interest rate hike for mid-December was still an increase of "only" 41bp, which was, however, already a significant increase compared with the beginning of the year. Here, the market-implied rates still indicated an increase of somewhat less than ten basis points compared with the market level at the time (-0.491%). In conclusion, the expectations of higher rates that have been rising since the beginning of the year have, as we understand it, increased once more in response to the recently published minutes.

What news from the ECB Governing Council recently?

Unsurprisingly, the central bankers also had to deal with pressing questions with regard to the ECB's appropriate policy publicly. For the ECB's Chief Economist and Governing Council member Philip R. Lane, it seemed important once again to contextualise the scenario of impending stagflation mentioned in the ECB minutes over the long term. During an interview conducted on 5 April, the economist again stressed that European economic activity is still in the recovery phase following the pandemic and, with regard to inflation (unlike the 1970s), it is more appropriate to speak of a shorter period of higher inflation rates. He justified this not least with the causes of the latest increase in prices, which are located outside the currency area. In the opinion of Yannis Stournaras, the ECB could and would ensure that temporary inflation as a consequence of the pandemic and the war did not become structural. However, in this context, the governor of the Bank of Greece also recently referred to the economic downside risks, should one not wish to "destroy" inflation too rapidly. For the president of the Dutch central bank, Klaas Knot, it should not yet be said that Europe was in an environment of "runaway inflation", meaning that he saw no indications of a wage-price spiral either. However, in his opinion, monetary policy is too loose. The president of the Bundesbank Joachim Nagel also believes that it is essential to avoid higher inflation rates becoming established. He also highlighted the significance of new data when deriving the decisions. In our opinion, the data dependency of ECB monetary policy remains a key cornerstone in its communication. Ultimately, it can be used to explain not only short-term adjustments to its own direction but also the necessity of adopting a wait-and-see approach. In combating price increases, however, cooperation with fiscal policy is also required in the opinion of Fabio Panetta, who is a member of the ECB's Executive Board. In his view, it would be too expensive economically to try to master inflation solely through a restrictive monetary policy, as this would not have any direct impact on the costs of imported food and energy prices. In this connection, Panetta also referred to instruments such as transfer payments and tax cuts. New monetary policy crisis instruments to combat possible sharp increases in some EMU States' sovereign bond yields were a key topic of discussion on financial markets at the end of last week but were not confirmed by officials. In our opinion, the risk of a defragmentation of sovereign bond markets in the eurozone is also likely to have made a material contribution to the decisions made in the past on the design of purchase programmes. Following the end of net purchases under the PEPP (see separate article), this risk could definitely come to the fore again. However, in our opinion, it is still a challenge at least to reconcile such an innovative instrument with the mandate of the ECB entirely.

ECB projections: not to be updated again until June

The ECB minutes of the March meeting show us not least that the ECB's projections are lagging behind reality to a certain extent as a result of current developments. That is certainly a harsh judgement on forecasters but entirely plausible against the backdrop of the dramatic events. The next projections are due in June (see ECB calendar) and should indicate less growth and higher inflation. These adjustments could then also provide additional impetus for significant monetary policy decisions, as we will explain below.

ECB calendar: all a question of timing – meetings of the ECB's Governing Council in 2022

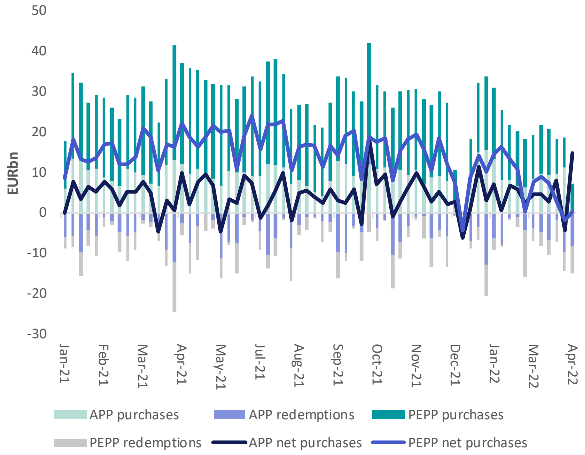
The ECB regularly publishes non-binding calendars for the regular tender operations and the Eurosystem's minimum reserve maintenance periods as well as the dates for its meetings in the current year. Updated ECB projections are due on 9 June. The current and expected upward trend in prices should increase the pressure on the ECB's Governing Council to act to a certain extent. However, at the same time, this also reduces the probability of trend-setting decisions being announced tomorrow (Thursday) in our opinion.

- 14 April
- 9 June (new ECB projections)
- 21 July
- 8 September (new ECB projections)
- 27 October
- 15 December (new ECB projections, for 2025 for the first time)

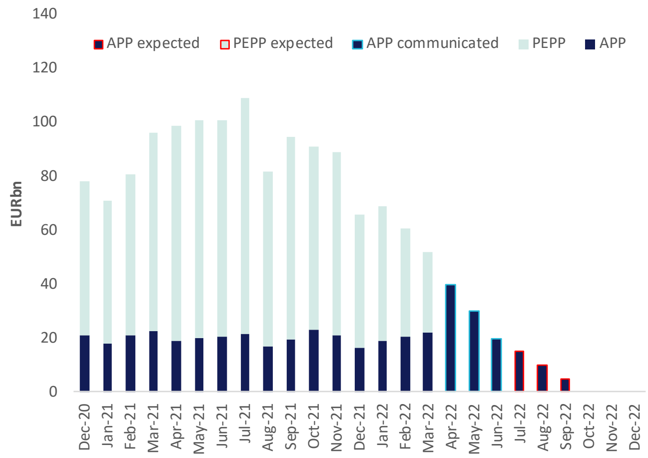
What do we expect for tomorrow, what will the rest of the year bring?

Working backwards, it is clear that, assuming a sequential approach is maintained – in other words, no interest rises before the end of net APP purchases – the ECB would have time at a maximum of two meetings at the end of 2022 to satisfy the expectations of higher rates for the current year. Here, 27 October and 15 December stand out. In this respect, the ECB is not currently under any great compulsion to act; it could, in our view, maintain the data-dependent, wait-and-see course initially. This means that we do not, among other things, expect announcements on the specific end to net APP purchases in our base scenario. This is a benchmark, which is only likely to be recorded at the June meeting. Otherwise, the ECB's Governing Council would deprive itself too early of the flexibility that it emphasises all too often. With regard to the focus of the April statement, we think a more hawkish tone is likely, which could pave the way for a rapid tightening of monetary policy starting in 2022. During the press conference, emphasis will once again be placed on the need for the ECB to act flexibly, and that monetary policy must change gradually. The risk of stagflation is likely to be put into context, similarly to the explanations by Lane mentioned above, against the backdrop of the fundamental state of the upturn following the pandemic. However, the ECB's Governing Council is also likely to have discussed and assessed the risks of renewed global setbacks (the current pandemic situation in China should be borne in mind here, in particular). What will this mean for interest rates? In line with market expectations, the expectation is of two hikes for the deposit facility (of 25bp in each case) in 2022. These steps should be rapidly and continually followed by further steps in 2023 and then gradually include the rates of the marginal lending facility and main refinancing operations. With regard to other monetary policy instruments such as TLTRO III and the graduated interest rate, adjustments within the April meeting are also theoretically conceivable. In our view, the end of the extremely attractive interest rate offered by the TLTRO III tender (special interest rate period) is still a "done deal" and a decision on subsequent tenders would be premature now. If necessary, the ECB's Governing Council could consider adjusting the factor for the part of surplus liquidity exempted from negative interest rates upwards to give commercial banks some leeway here. A driver of surplus liquidity will disappear with the end of net purchases and the change in interest rates would ease pressure on banks anyway. However, should the ECB, for example, wish to cushion the consequences of the special interest rate period ending, a higher tiering factor could provide relief.

Weekly purchases under the PEPP and APP



APP and PEPP: monthly purchases & baseline scenario



Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Scenario analysis

Net purchases amounted to just under EUR 52.2bn in March 2022. This is the lowest figure recorded in the two years in which the APP and PEPP coexisted. The "horror" of a reversion to EUR 40bn from the APP alone in April is therefore not likely to be excessive. The markets are also able to predict that this figure will be followed by EUR 30bn in May and EUR 20bn in June. Figures in excess of EUR 90bn or even almost EUR 110bn have not been seen since mid-2021. Accordingly, we are comfortable with the ECB's communication strategy of a gradual withdrawal from the PEPP and are planning further reductions in monthly volumes up to the end of September, as we show in the "baseline scenario" diagram.

Conclusion and comments

Expectations of higher rates have intensified once more on financial markets in recent days. Accordingly, two hikes in key interest rates seem increasingly plausible as a baseline scenario. In our opinion, the minutes of the March meeting presented last week in particular support this view. However, we do not wish to fuel any great expectations with regard to the ECB's decision on key interest rates tomorrow. For the moment, the wait-and-see attitude, which is heavily dependent on new data, will remain the dominant strategy in the ECB's Governing Council. In relation to specific decisions, we see the April meeting more as one of those meetings that must be described as an interim step. As the recent past has taught us, however, one can be entirely accurate with this expectation but must view the statement in line with the subsequent press conference. In this respect, we are also wary of describing the April meeting as a "non-event" before it takes place. With regard to the new projections in June, we also prefer to refer to the term "slowflation" instead of "stagflation", as the forecasts for growth everywhere are still positive for 2022 and do not forecast any stagnation or any fall in gross domestic product – rather a slowdown combined with higher inflation rates.

Cross Asset
PEPP reporting: (Not) an obituary

Authors: Dr Norman Rudschuck, CIIA // Dr Frederik Kunze

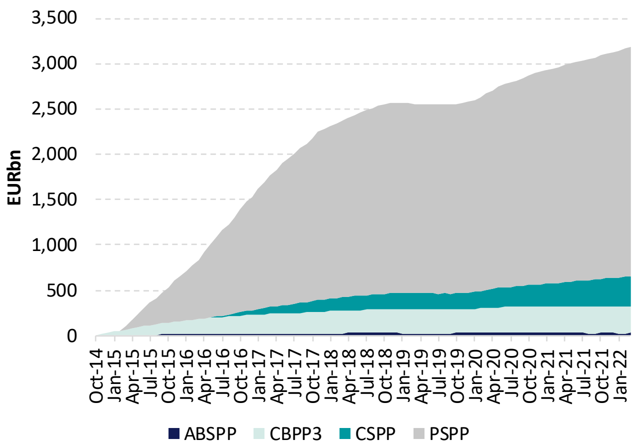
PEPP: (Not) an obituary – purchasing suspended

This is not supposed to be a farewell to let alone an obituary of the PEPP, as the billions of euros worth of reinvestments over the coming years (likely until the end of 2024 at least) are also too important for the future. However, the defining monetary policy programme of the last two years deserves a fitting setting at the conclusion of net purchases. It was defined by the Eurosystem as follows: the Pandemic Emergency Asset Programme (PEPP) is (was) a temporary asset purchase programme of private and public securities, as had previously been purchased under the APP. In addition to the securities eligible under the APP, commercial paper issued by non-financial debtors with a remaining term of at least 28 days was eligible for purchase under the PEPP (APP: six months), as were public sector securities with a remaining term of at least 70 days (APP: one year). Securities issued by the Greek government can also be purchased under the PEPP but not the APP. In contrast to the APP, (net) purchases under the PEPP were also based on a maximum overall volume, which must not be exhausted – spoiler: and was not ultimately used in full either. The volume was EUR 750bn originally (March 2020). On 4 June 2020, the ECB's Governing Council increased the volume by EUR 600bn, and again by EUR 500bn on 10 December 2020, bringing it to a total of EUR 1,850bn. (Net) purchases under the PEPP were in addition to APP purchases, as we reported and clarified every week in this publication, especially at the beginning. PEPP purchases started officially on 26 March 2020. Here too, the Bundesbank provided a definition and delimitation: "They are carried out to the extent that they are considered necessary and proportionate to counter the risk of the Eurosystem's ability to fulfil its role being impaired because of the extraordinary economic and market conditions." For the purchases of public sector securities (sovereigns and supranationals, but also sub-sovereigns and agencies), allocation to the individual countries is based on the respective capital key of national central banks. It also states that "PEPP purchases are also to contribute to guaranteeing monetary policy transmission throughout the euro area in the event of the market turbulence occurring as a consequence of the pandemic, as occurred in spring 2020, and, in particular, preventing any market fragmentation. For this purpose, purchases under the PEPP are conducted in a flexible manner. This means that the allocation of purchases across asset classes and countries may fluctuate over time. Together with other measures, the PEPP serves to maintain favourable financing conditions during the pandemic. The temporary measure will remain in place until the ECB's Governing Council decides that the critical COVID-19 phase is concluded." Net PEPP purchases were suspended at the end of March 2022 by resolution of the ECB's Governing Council on 16 December 2021. The maturing principal payments from securities purchased under the PEPP will be reinvested until at least the end of 2024. As with the APP, the Eurosystem's national central banks conduct the majority of the purchases, a small portion is purchased by the ECB itself. Risk is also shared in the same way as with the APP.

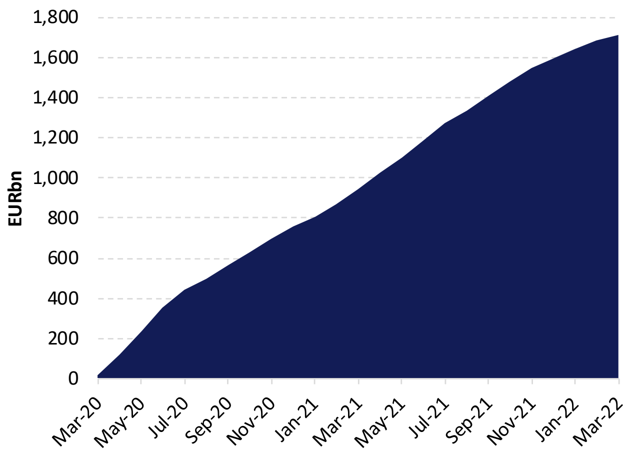
PEPP reporting: decreasing relevance moving forward?

New net purchases, which have been conducted through the ECB since March 2020, would therefore look back on a term of two years, since net purchases were suspended on 1 April 2022. We are also looking back on a certain history for the PEPP reporting published by the ECB every two months. The very detailed albeit sometimes inadequate information on the PEPP was published for the first time in May 2020. With the latest update (for the reporting period February and March), the Eurosystem presented (delayed) current figures on the allocation of securities purchased in the course of the PEPP on 6 April 2022. As we explain in this article on PEPP reporting, an examination of the figures does not reveal any major surprises. Nevertheless, an examination of the scope and composition of the PEPP still seems more than merely advisable in the current market environment. This is true not least against the backdrop of the ECB's diversified options in relation to future purchasing patterns under the APP. In this context, the path of reinvestments of maturing PEPP purchases is also significant, although – as we have repeatedly commented here – the ECB introduced reporting similar to the APP for the PEPP, it has never provided this – particularly with regard to the anticipated maturities under the PEPP. We would like to examine these lines of thought further below and also dare to look cautiously into the future, as the reinvestments up to the end of 2024 are now coming to the fore and the reporting will have to be amended anyway in the absence of net purchases. In our opinion, the focus will then switch clearly to all maturing securities and, from our perspective, details of these should also be reported in the interests of central bank transparency.

Trend in APP volume



Trend in PEPP volume



Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Net volume reaches 92.9%; gross purchases already over EUR 2,000bn

At the last regular reporting date for net purchases, the volume of the PEPP was EUR 1,718.1bn, which equates to a 92.9% share of the volume specified of EUR 1,850bn. Since this figure does not even depict the current (account) balance of the programme due to quarter-end amortisations (holdings: EUR 1,696.5bn), it is worth looking at the gross purchases. Here, it becomes clear that in gross terms some EUR 2,012.2bn has already been purchased under the PEPP. The share of maturing securities (EUR 295.5bn) comes to 14.7% of gross purchases and is therefore significant and relevant with regard to the fact that these are being reinvested in their entirety until probably the end of 2024.

Therefore, always keep an eye on maturities

In 2021, an average of EUR 3.7bn in assets matured every week, compared with EUR 3.9bn year-to-date in 2022. With regard to the reinvestment strategy, it is therefore still not clear to us, as previously mentioned, why the ECB displays such a lack of transparency, as we consider two-monthly reporting as too infrequent and not sufficiently detailed since only reinvestments and no net purchases have been conducted since the beginning of April 2022.

Weekly consideration: average pace of purchases declined week on week

We will also dare to take another look into the rear-view mirror: since the beginning of the PEPP at the end of March 2020, the ECB has purchased on average EUR 16.1bn per week – with purchases falling sharply recently. Although the volumes observed each week were consequently subject to significant fluctuations – such as in phases of little market activity (Christmas or the summer holidays) – it was clear to us at an early stage that with a declining average, the figure of EUR 1,850bn set for the end of March 2022 would not be fully utilised. In the meantime, the earliest possible end of net purchases was even brought forward somewhat, since the accelerated pace made this mathematically feasible. However, the pace of purchases has been cut back or curbed for months, as has been described on numerous occasions at this point. Our forecast that the pace would slow significantly, especially at the end of the programme, proved to be correct. However, the ECB has retained the greatest possible flexibility with regard to the PEPP to date and always stressed in its Council meetings that both under-utilisation of the amount of EUR 1,850bn and a further increase would be "equally" likely. Even a revival following termination was suddenly included in the press release. The PEPP has played its part in the two years – the effects of the pandemic on public issuers, in particular, were cushioned by artificially low yields and correspondingly low funding costs.

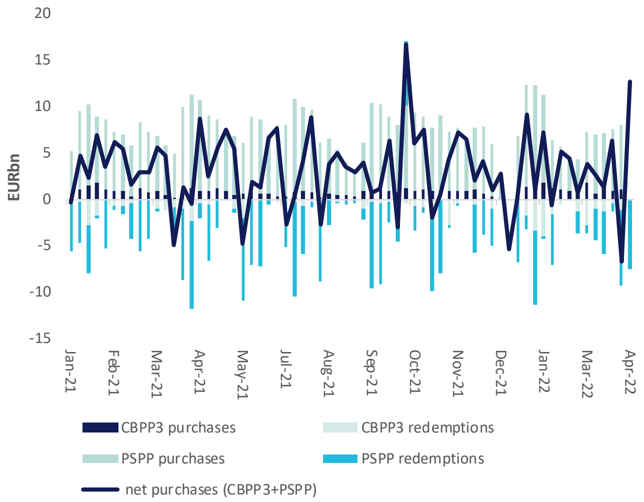
Public sector asset share confirmed at a high level

A clear trend was again apparent from the latest figures on the PEPP: from the beginning, the aim of the PEPP was to purchase public sector assets. The proportion of public sector assets has now climbed to 96.9% and, in doing so, confirmed the peak to date. In total, EUR 68.3bn worth of public sector assets were purchased in February and March 2022 – compared with EUR 99.2bn in the previous period – under the PEPP.

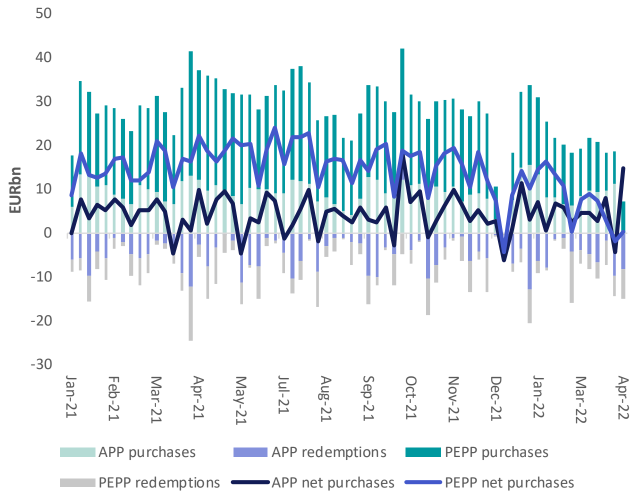
PEPP relevance with regard to covered bonds: in absolute figures marginal…

In our opinion, it is no exaggeration to state that the PEPP has (or, perhaps this should be had) virtually no immediate relevance for the covered bond segment. We have referred to this repeatedly in the past and do not tire of emphasising this now. The PEPP share for covered bonds currently stands at 0.4% (EUR 6.1bn). Nevertheless, we see an indirect impact on the covered bond market not least through second round effects and due to the possible circumstances that the substantial volumes purchased in the "public sector securities" category, in particular, under the PEPP created somewhat more scope for covered bonds under the APP. Certain interdependencies between the APP and PEPP programmes solely because of the identical ISIN lists within the reporting cannot be dismissed anyway.

Weekly purchases under the PSPP and CBPP3 (since 2021)



Weekly purchases under the PEPP and APP (since 2021)



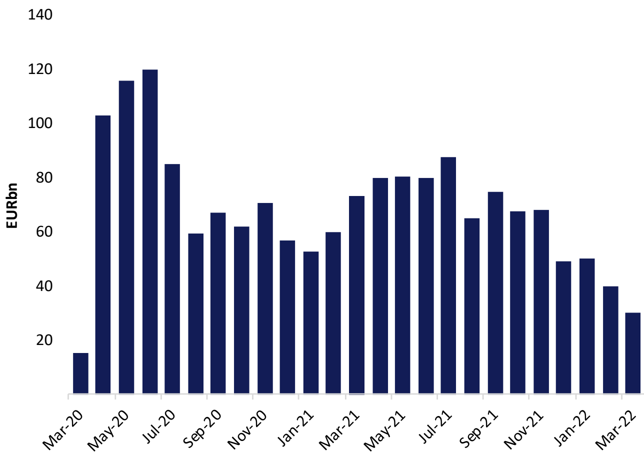
Source: ECB, NORD/LB Markets Strategy & Floor Research

Volumina der Assetklassen (in EURm)

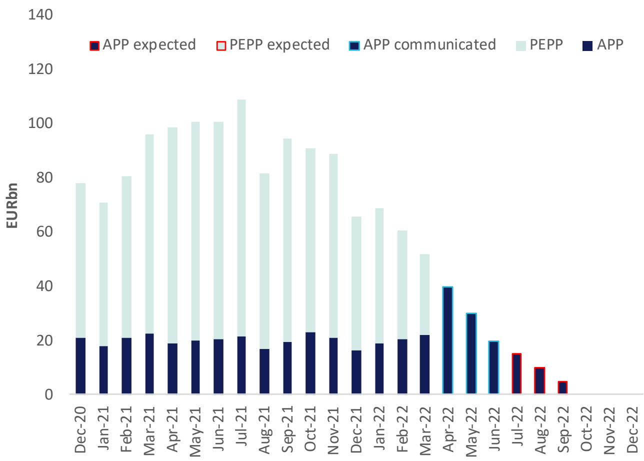
	Asset-backed Securities	Covered Bonds	Corporate Bonds	Commercial Paper	Public Sector Securities	PEPP
Jan-22	0	6,073	40,301	3,857	1,580,547	1,630,779
Mar-22	0	6,067	40,313	5,862	1,644,247	1,696,489
Δ (net purchases)	0	-6	+48	+2,007	+68,342	+70,398

Source: ECB, NORD/LB Markets Strategy & Floor Research

PEPP: monthly purchases

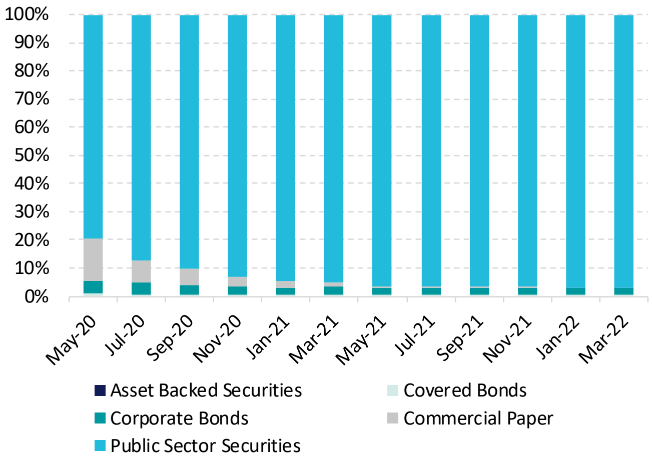


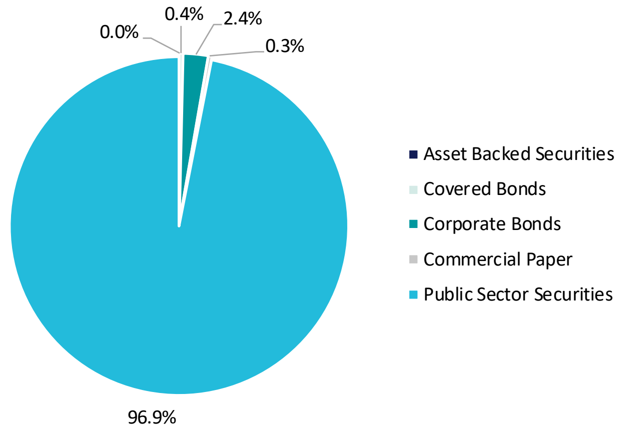
APP and PEPP: monthly purchases & baseline scenario



Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

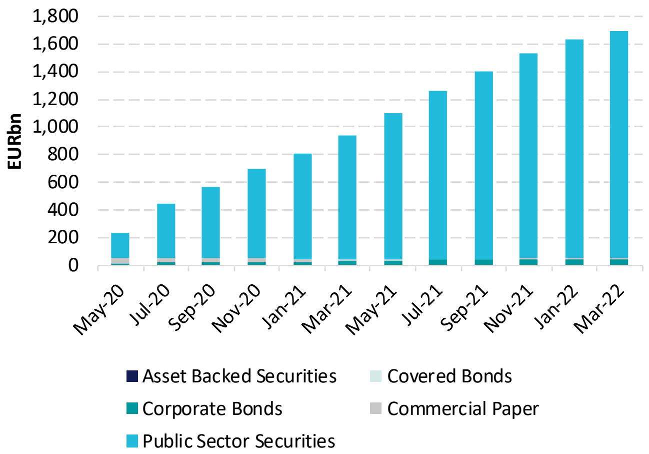
PEPP: portfolio structure



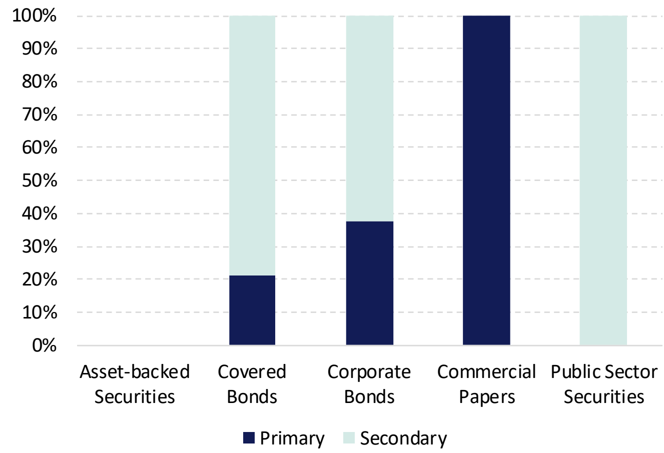


Source: ECB, NORD/LB Markets Strategy & Floor Research

PEPP portfolio development



Share of primary/secondary market purchases



Source: ECB, NORD/LB Markets Strategy & Floor Research

NORD/LB

Overview of public sector assets under the PEPP

Jurisdiction	Holdings (in EUR m)	Adjusted distribution key[1]	PEPP share	Δ vs. adjusted distribution key[2]	Ø time to maturity (in years)	Market average[3] (in years)	Difference (in years)
AT	43,980	2.6%	2.6%	0.0%	7.9	7.1	0.8
BE	56,797	3.3%	3.4%	0.1%	6.6	9.1	-2.5
CY	2,633	0.2%	0.2%	0.0%	8.6	8.5	0.1
DE	408,941	23.7%	24.6%	0.8%	6.3	6.8	-0.4
EE	256	0.3%	0.0%	-0.2%	8.2	6.6	1.6
ES	189,664	10.7%	11.4%	0.7%	7.7	7.6	0.1
FI	28,183	1.7%	1.7%	0.0%	6.8	8.0	-1.2
FR	302,287	18.4%	18.1%	-0.2%	8.0	7.6	0.4
GR	38,504	2.2%	2.3%	0.1%	8.7	9.5	-0.7
IE	25,532	1.5%	1.5%	0.0%	9.2	9.3	-0.1
IT	281,026	15.3%	16.9%	1.6%	7.1	6.9	0.1
LT	3,215	0.5%	0.2%	-0.3%	10.3	9.9	0.4
LU	1,833	0.3%	0.1%	-0.2%	6.5	6.2	0.3
LV	1,887	0.4%	0.1%	-0.2%	8.7	8.9	-0.2
MT	610	0.1%	0.0%	-0.1%	11.1	9.2	1.9
NL	85,172	5.3%	5.1%	-0.2%	7.8	8.4	-0.6
PT	34,742	2.1%	2.1%	0.0%	6.8	7.2	-0.3
SI	6,499	0.4%	0.4%	0.0%	9.3	9.3	-0.1
SK	7,966	1.0%	0.5%	-0.6%	8.9	8.3	0.6
SNAT	145,950	10.0%	8.8%	-1.2%	10.3	8.5	1.8
Total / Avg.	**1,665,676**	**100.0%**	**100.0%**	**0.0%**	**7.6**	**7.5**	**0.1**

[1] Based on the ECB capital key, adjusted to include supras
[2] Based on the adjusted distribution key [3] Weighted average time to maturity of the bonds eligible for purchasing under the PEPP
Source: ECB, NORD/LB Markets Strategy & Floor Research

Monthly PSPP deviations a frequent topic of discussion

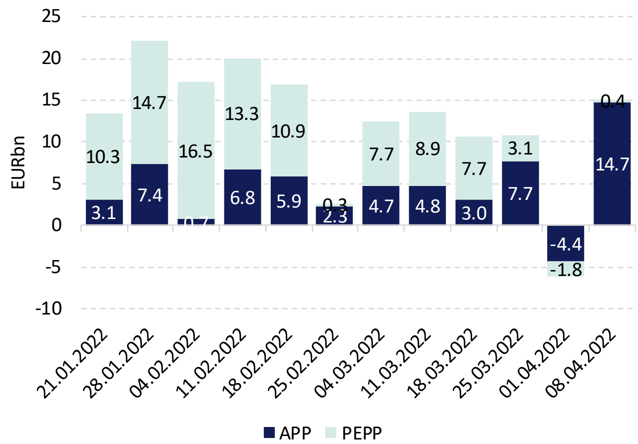
It is our understanding that the PSPP portfolio has been permanently "breathing" since 2015. This is also what the ECB is communicating. In addition, the ECB does not consider itself obligated to meet the capital key exactly for its holdings in any one month and especially not with new transactions either. As such, this applies not only to the net purchases made in the reporting month, but also to the figures recorded since the programme was first set up in 2015. This results from the circumstance that there are maturities in specific jurisdictions which may only be reinvested with a certain time lag and this means that, in net terms, short-term portfolio outflows can actually occur instead of net purchases, as the word "breathing" would suggest. Discrepancies have occurred and are occurring time and again with regard to the target figures for German, Italian and French as well as supranational bonds. In this respect, market observers remain left at a loss as to why purchases were made under the one programme on behalf of the Eurosystem rather than on behalf of the other entity, in order to avoid such discussion in the media (or among market observers). Sometimes the figure is exceeded for the PEPP and there is a shortfall under the PSPP (or vice versa). Yet again, we are calling for the ECB to implement a positive change to its reporting so as to also provide information about the volume of maturities, for example, and consequently on the resultant reinvestments, or to allow certain market shortages to be identified in good time.

Aggregated purchase activity under the APP and PEPP (EUR m)

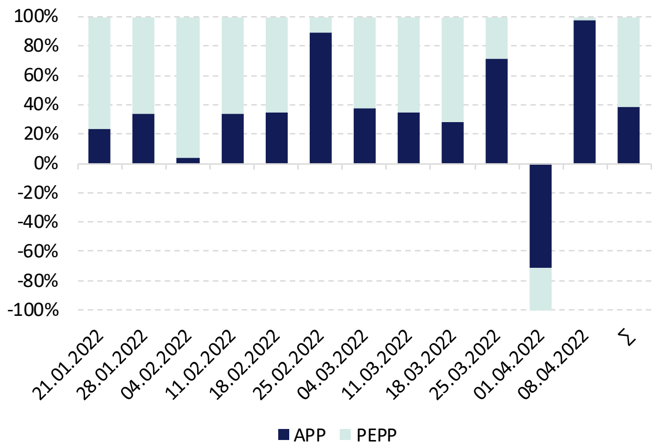
	APP	PEPP	APP & PEPP
Feb-22	3,162,920	1,687,862	4,850,782
Mar-22	3,179,056	1,718,076	4,897,132
Δ (net purchases)	+21,943	+30,214	+52,157

Source: ECB, NORD/LB Markets Strategy & Floor Research

Weekly purchase volume



Distribution of weekly net purchases

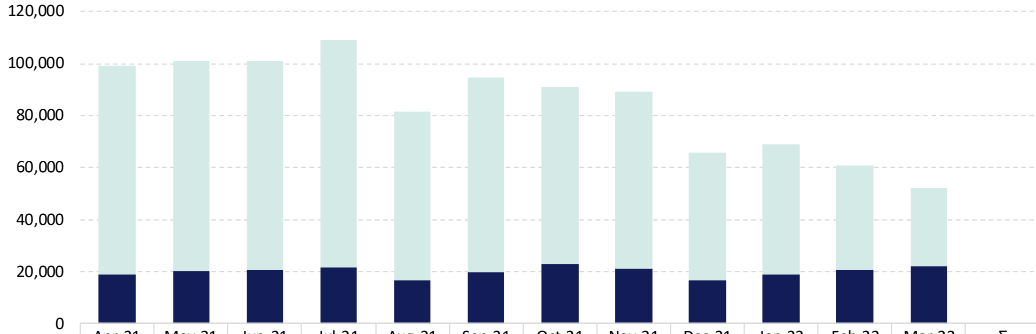


Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Reinvestment phase of the PEPP and also the APP designed as long-term support

Within our reporting on the PEPP and the APP as well, we have regularly focused on the different objectives of the two purchase programmes and were therefore able to explain the different portfolio structures. While the APP was and is operated with the aim of achieving stable prices, the objective of the PEPP is designed to be far more short term and is expected to counter the negative consequences of the pandemic. Looking ahead, we see these differences basically being maintained for the two reinvestment phases. As already mentioned, the ECB currently envisages reinvesting in maturing PEPP securities until the end of 2024 at least, while it intends to reinvest fully in maturing APP securities "for a longer period beyond the date at which it [the ECB's Governing Council] starts to raise key interest rates". Given the most recent changes in prices but also the lack of complete unity emerging in the ECB's Governing Council with regard to the necessity of an accommodating monetary policy, we consider that there is an increased likelihood of adjustments here too. Nevertheless, the ECB President, Christine Lagarde, in particular, is again likely to try to work towards a gradual approach. Too rapid a reduction in the ECB's balance sheet would actually have a potential to disrupt the monetary policy transmission mechanism that should not be disregarded. To recap, the aggregated volume of the APP and PEPP totalled EUR 4,897bn at the end of March 2022. By implication, both portfolios should still shape demand for the asset classes we cover for a long period regardless of what happens to purchases over the next few months (key phrase: reinvestment until at least the end of 2024).

PEPP vs. APP: monthly net purchases



	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	∑
∑	99,036	100,841	100,808	109,154	81,799	94,710	90,872	89,245	65,971	68,951	60,882	52,157	1,014,42
PEPP	80,118	80,700	80,168	87,557	65,050	75,051	67,855	68,045	49,375	50,113	40,184	30,214	774,430
APP	18,918	20,141	20,640	21,597	16,749	19,659	23,017	21,200	16,596	18,838	20,698	21,943	239,996

Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Conclusion and outlook

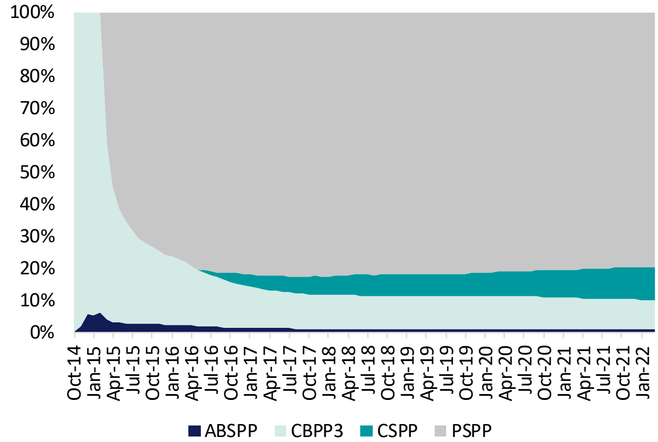
The end of net PEPP purchases is a “done deal”. The “envelope” of EUR 1,850bn was not fully utilised by the end of Q1 2022. The interim question as to the extent to which this envelope would be sufficient or would have to be increased was answered well in advance every week in recent months due to the slowdown in purchasing activities. The data shows that the pace of purchases was recently scaled back quite significantly, which is also a consequence of the inflationary developments in the Eurozone. The new era, which may be very short, has now started in which the APP will have to make the purchases alone. In all likelihood, the focus will be concentrated solely on reinvestment from September at the latest. With regard to the differences in the PEPP and APP portfolios, the original motives for setting up the unorthodox monetary policy instruments play a significant role. The critical factor is therefore also the question as to how far the ECB will ensure its own flexibility in the future too. We are not ignoring the possibility either that, for example, even less attention may be bestowed on the covered bond segment in the form of purchases or reinvestments in the reinvestment phase. For public sector bonds, we expect the lack of information or “blind spots” with regard to transparency to continue in the reinvestment phases too and would again request more transparency on the part of the Eurosystem here. Even after the end of net purchases under the PEPP, the PEPP reporting will remain relevant. However, the actual reporting and the impetus to be read from this should, we believe, be far more ample.

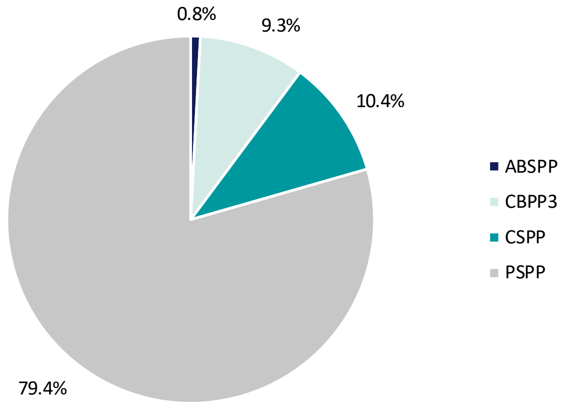
ECB tracker

Asset Purchase Programme (APP)

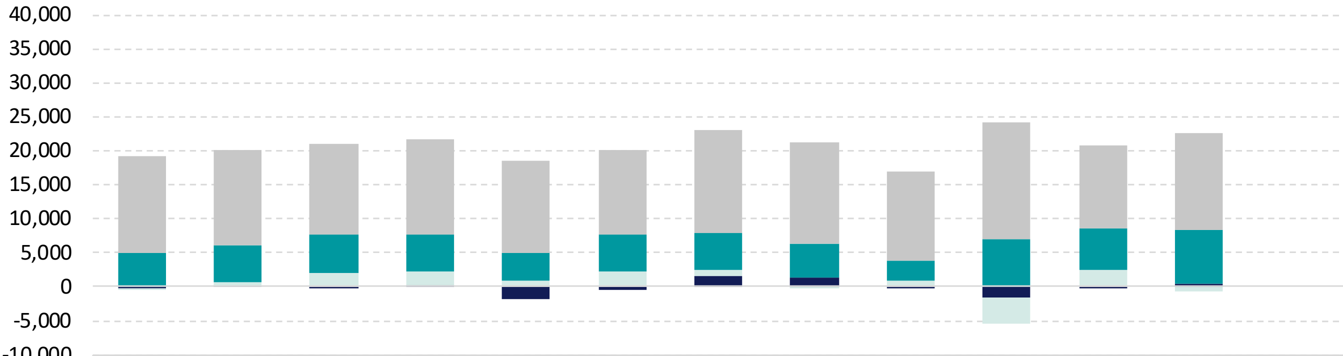
	ABSPP	CBPP3	CSPP	PSPP	APP
Feb-22	26,696	296,783	322,918	2,516,523	3,162,920
Mar-22	26,992	295,849	330,605	2,525,610	3,179,056
Δ	+335	-606	+8,042	+14,172	+21,943

Portfolio structure





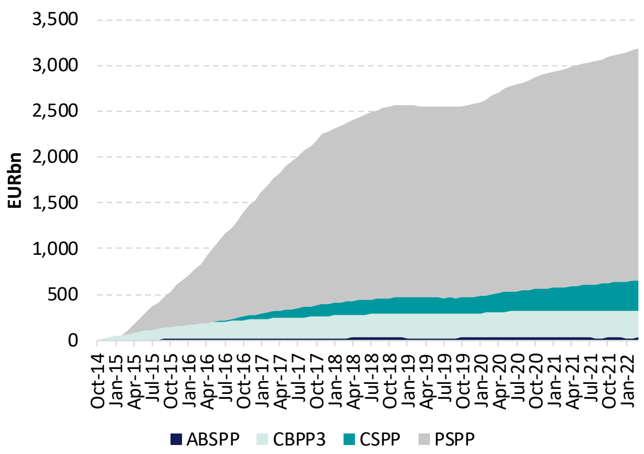
Monthly net purchases (in EURm)



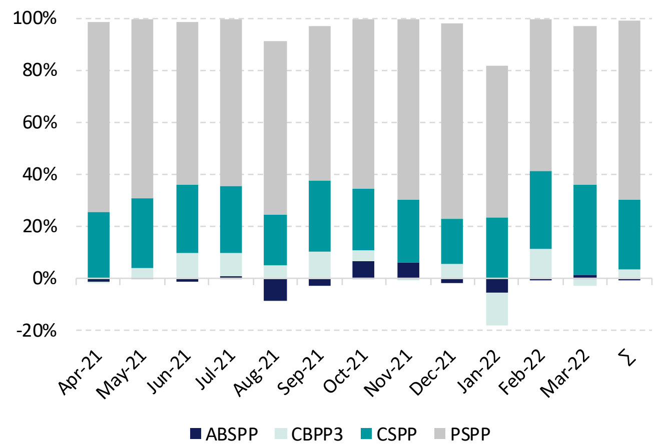
	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	∑
APP	18,918	20,141	20,640	21,597	16,749	19,659	23,017	21,200	16,596	18,838	20,698	21,943	239,996
PSPP	14,186	13,973	13,320	13,943	13,563	12,423	15,038	14,815	12,989	17,292	12,095	14,172	167,809
CSPP	5,015	5,394	5,602	5,502	3,936	5,590	5,481	5,142	3,007	6,970	6,272	8,042	65,953
CBPP3	-5	686	2,037	2,011	999	2,184	1,008	-12	942	-3,761	2,376	-606	7,859
ABSPP	-278	88	-319	141	-1,749	-538	1,490	1,255	-342	-1,663	-45	335	-1,625

Source: ECB, NORD/LB Markets Strategy & Floor Research

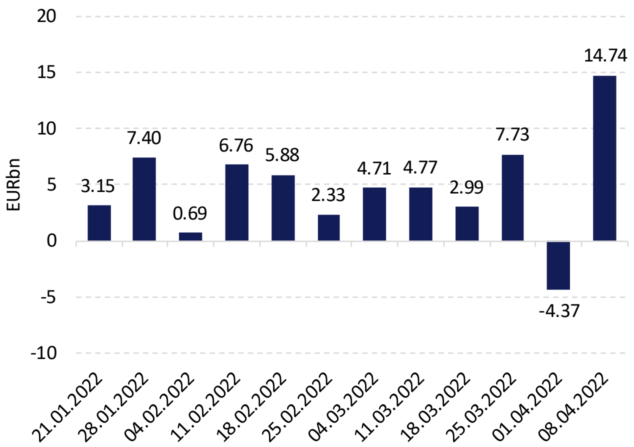
Portfolio development



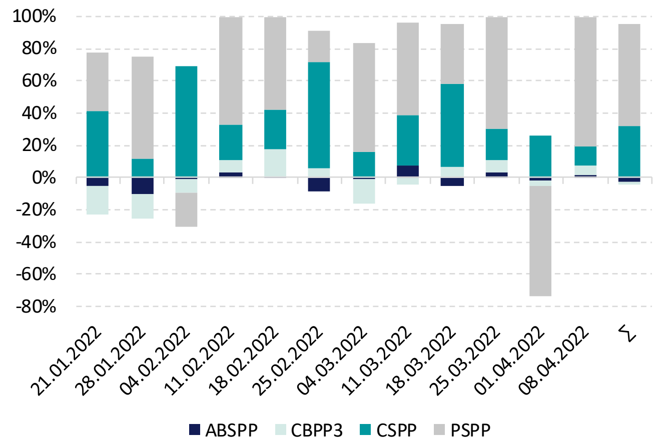
Distribution of monthly purchases



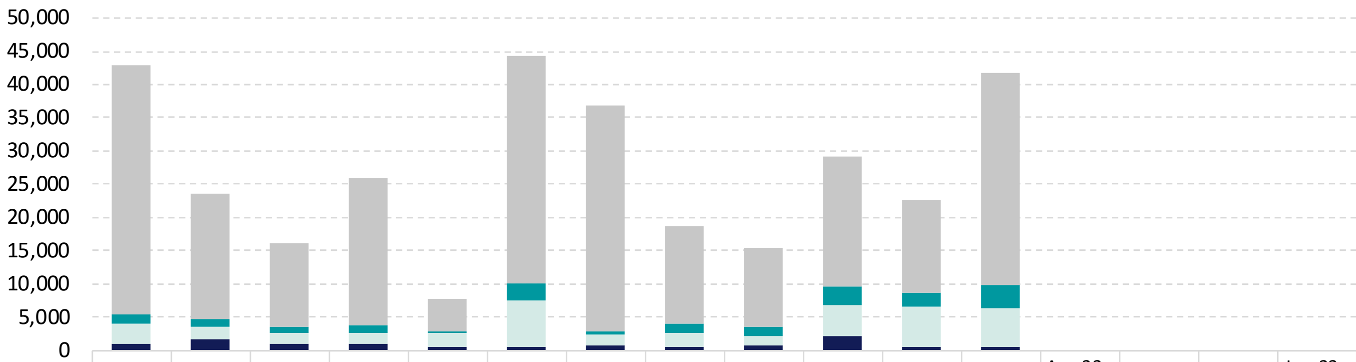
Weekly purchases



Distribution of weekly purchases



Expected monthly redemptions (in EURm)



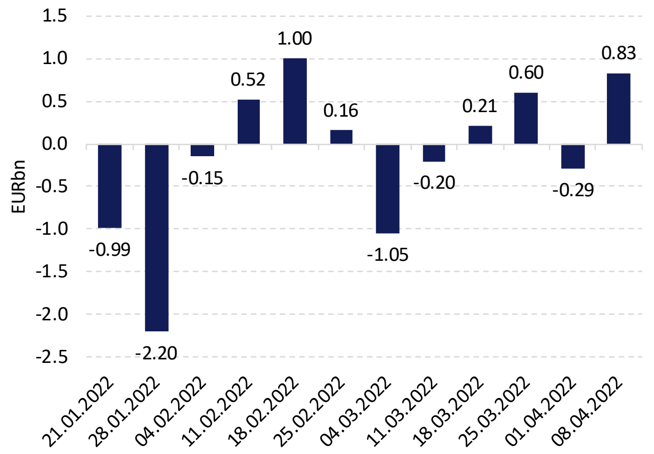
	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-22 - Mar-23	2021	2022	Jan-23 - Mar-23
APP	42,930	23,654	16,173	26,001	7,795	44,333	36,838	18,680	15,540	29,064	22,658	41,757	325,423	247,069	296,690	93,479
PSPP	37,532	19,000	12,638	22,256	4,841	34,354	34,003	14,669	12,016	19,469	14,085	32,033	256,896	188,494	228,443	65,587
CSPP	1,301	1,096	1,017	1,198	280	2,534	549	1,432	1,266	2,734	2,040	3,492	18,939	17,134	16,111	8,266
CBPP3	3,019	1,866	1,582	1,629	2,227	6,866	1,648	2,165	1,415	4,783	5,927	5,631	38,758	30,143	41,160	16,341
ABSPP	1,078	1,692	936	918	447	579	638	414	843	2,078	606	601	10,830	11,298	10,976	3,285

Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

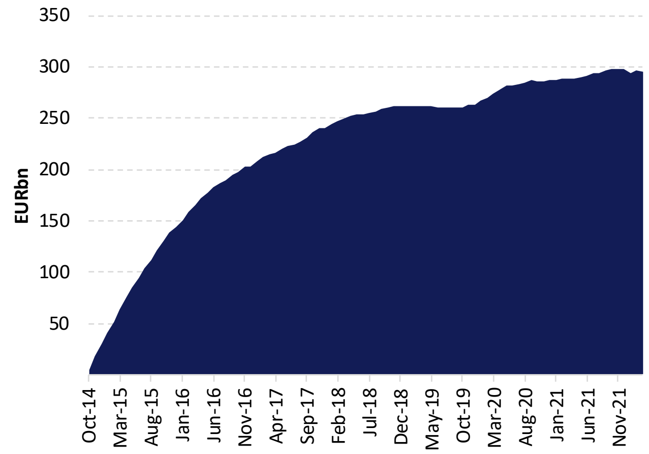
NORD/LB

Covered Bond Purchase Programme 3 (CBPP3)

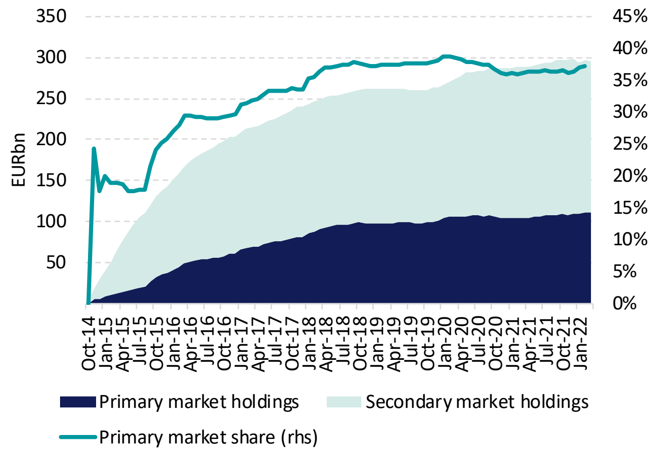
Weekly purchases



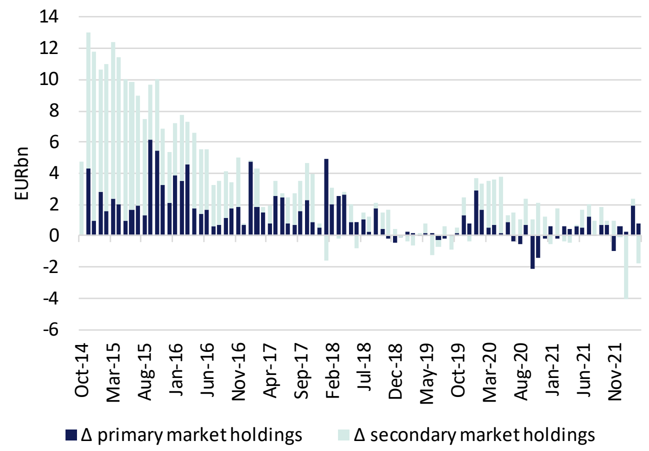
Development of CBPP3 volume



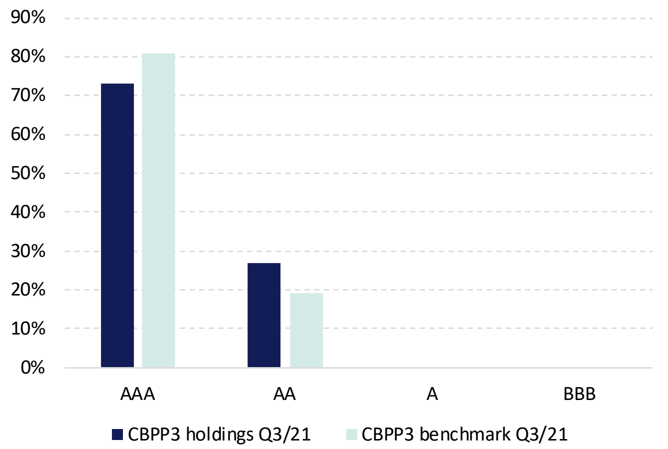
Primary and secondary market holdings



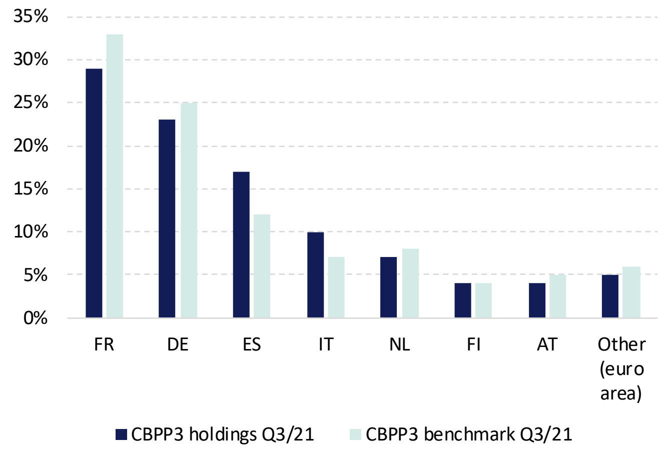
Change of primary and secondary market holdings



Distribution of CBPP3 by credit rating



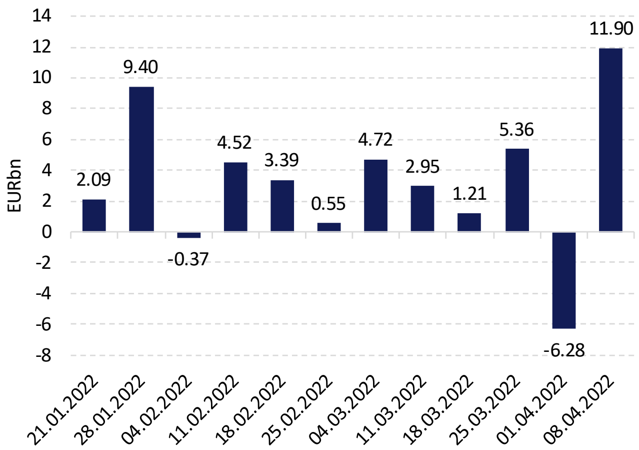
Distribution of CBPP3 by country of risk



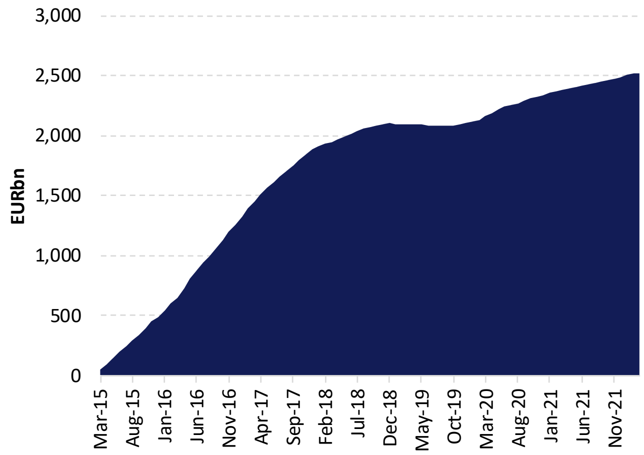
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Public Sector Purchase Programme (PSPP)

Weekly purchases



Development of PSPP volume



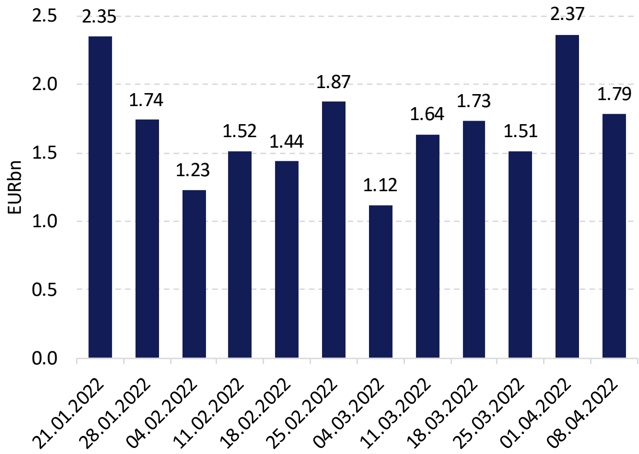
Overall distribution of PSPP buying at month-end

Jurisdiction	Adjusted distribution key[1]	Purchases (EURm)	Expected purchases (EURm)[2]	Difference (EURm)	Avg. time to maturity[3] (in years)	Market average[3] (in years)[3]	Difference (in years)
AT	2.7%	74,671	72,243	2,428	7.5	7.6	-0.1
BE	3.4%	90,759	89,924	835	8.0	10.2	-2.2
CY	0.2%	4,340	5,311	-971	9.9	8.8	1.1
DE	24.3%	644,889	650,667	-5,778	6.6	7.6	-1.0
EE	0.3%	414	6,953	-6,539	9.2	7.5	1.7
ES	11.0%	307,664	294,329	13,335	8.0	8.4	-0.4
FI	1.7%	43,031	45,339	-2,308	6.9	7.7	-0.8
FR	18.8%	526,943	504,123	22,820	7.2	8.1	-0.9
GR	0.0%	0	0	0	0.0	0.0	0.0
IE	1.6%	40,200	41,797	-1,597	8.5	10.1	-1.6
IT	15.7%	441,026	419,319	21,707	7.1	7.9	-0.8
LT	0.5%	5,640	14,285	-8,645	10.2	10.6	-0.4
LU	0.3%	3,634	8,131	-4,497	5.6	7.2	-1.7
LV	0.4%	3,528	9,618	-6,090	11.3	10.4	0.9
MT	0.1%	1,403	2,589	-1,186	9.5	9.2	0.3
NL	5.4%	125,512	144,650	-19,138	7.7	9.0	-1.4
PT	2.2%	52,593	57,770	-5,177	7.0	7.2	-0.2
SI	0.4%	10,367	11,885	-1,518	9.9	10.2	-0.3
SK	1.1%	17,465	28,267	-10,802	8.2	8.3	-0.1
SNAT	10.0%	280,586	267,467	13,119	7.7	8.9	-1.2
Total / Avg.	**100.0%**	**2,674,666**	**2,674,666**	**0**	**7.3**	**8.2**	**-0.9**

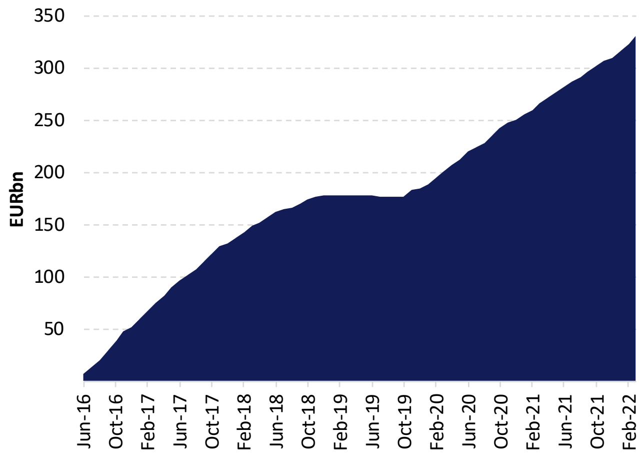
[1] Based on the ECB capital key, adjusted to include supras and the disqualification of Greece
[2] Based on the adjusted distribution key
[3] Weighted average time to maturity of the bonds eligible for purchasing under the PSPP (semi-annual data, Q1/2021)
Source: ECB, NORD/LB Markets Strategy & Floor Research

Corporate Sector Purchase Programme (CSPP)

Weekly purchases

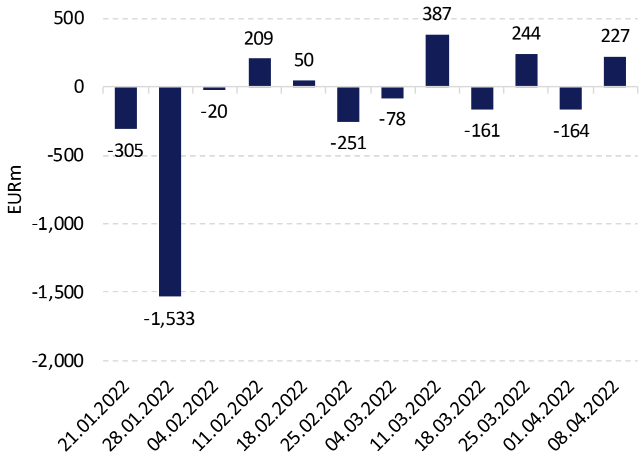


Development of CSPP volume

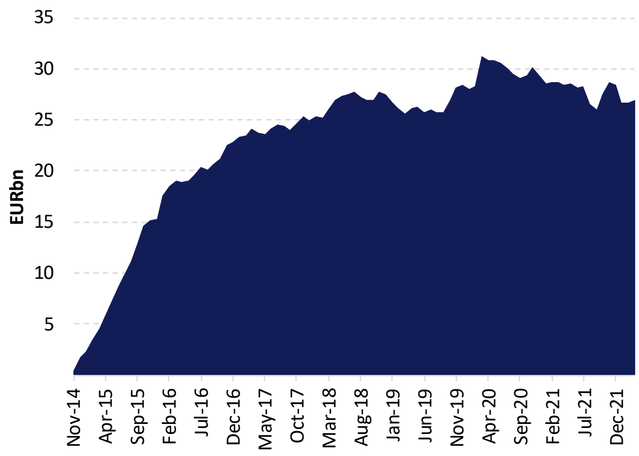


Asset-Backed Securities Purchase Programme (ABSPP)

Weekly purchases



Development of ABSPP volume



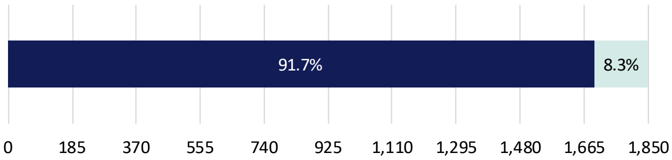
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Pandemic Emergency Purchase Programme (PEPP)

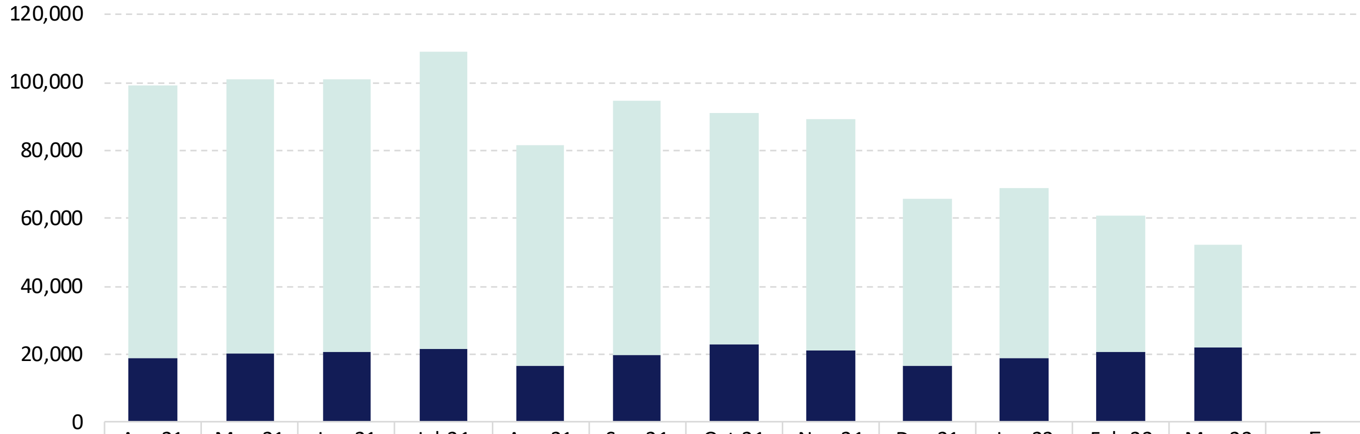
Holdings (in EURm)

	PEPP
Feb-22	1,687,862
Mar-22	1,718,076
Δ (net purchases)	+30,214

Invested share of PEPP envelope (in EURbn)

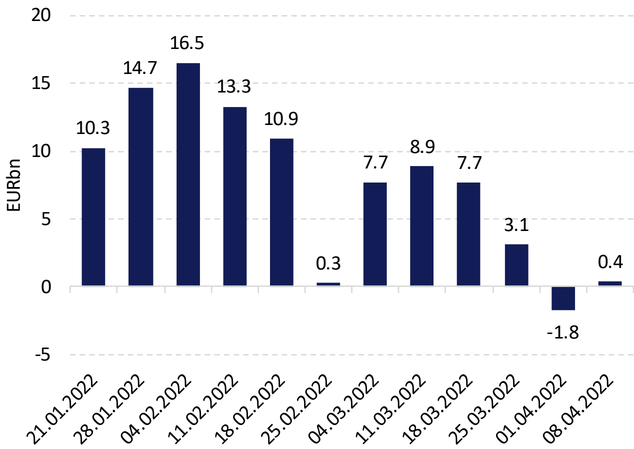


Monthly net purchases (in EURm)

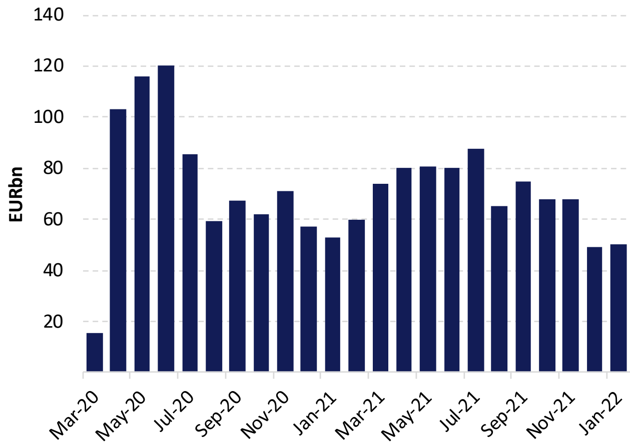


	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	∑
∑	99,036	100,841	100,808	109,154	81,799	94,710	90,872	89,245	65,971	68,951	60,882	52,157	1,014,42
PEPP	80,118	80,700	80,168	87,557	65,050	75,051	67,855	68,045	49,375	50,113	40,184	30,214	774,430
APP	18,918	20,141	20,640	21,597	16,749	19,659	23,017	21,200	16,596	18,838	20,698	21,943	239,996

Weekly purchases



Development of PEPP volume

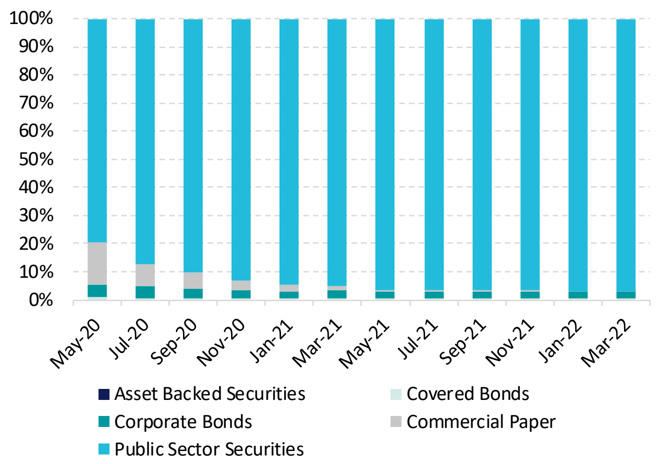


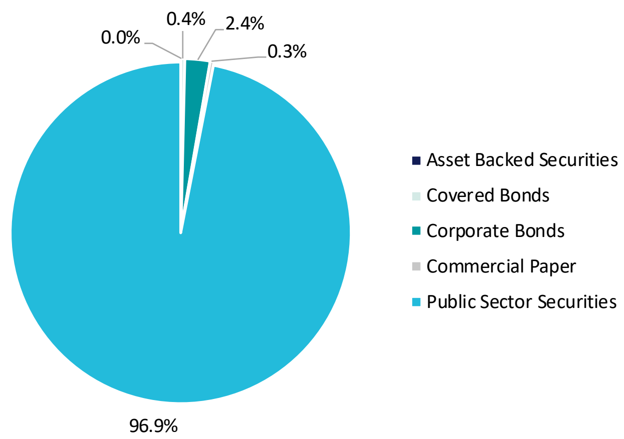
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Holdings under the PEPP (in EURm)

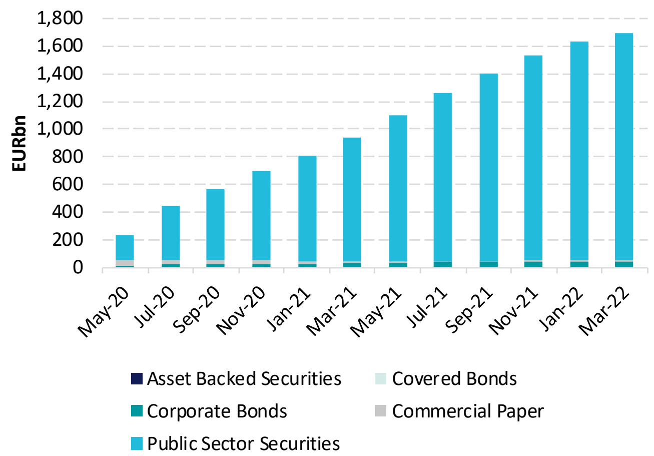
	Asset-backed Securities	Covered Bonds	Corporate Bonds	Commercial Paper	Public Sector Securities	PEPP
Jan-22	0	6,073	40,301	3,857	1,580,547	1,630,779
Mar-22	0	6,067	40,313	5,862	1,644,247	1,696,489
Δ (net purchases)	0	0	+48	+2,007	+68,342	+70,398

Portfolio structure

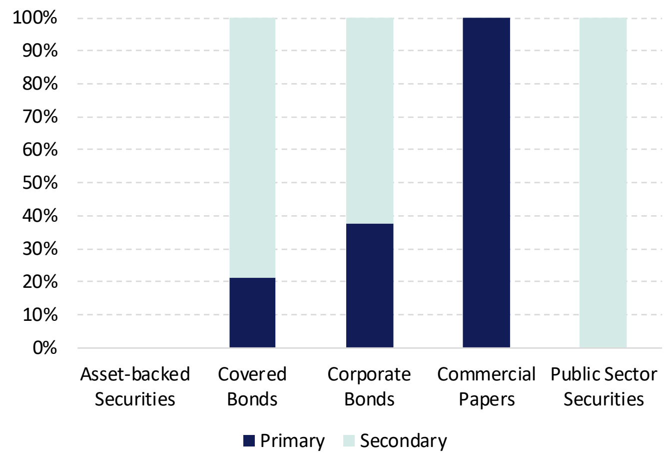




Portfolio development



Share of primary and secondary market holdings



Breakdown of private sector securities under the PEPP

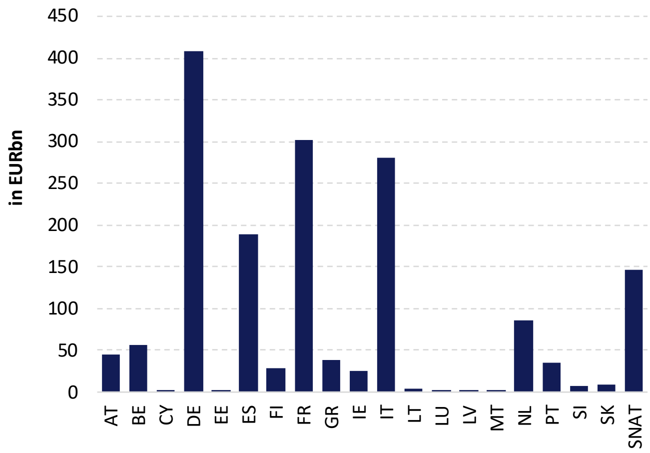
Mar-22	Asset-backed securities		Covered bonds		Corporate bonds		Commercial paper	
	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary
Holdings in EURm	0	0	1,298	4,769	15,162	25,151	5,862	0
Share	0.0%	0.0%	21.4%	78.6%	37.6%	62.4%	100.0%	0.0%

Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

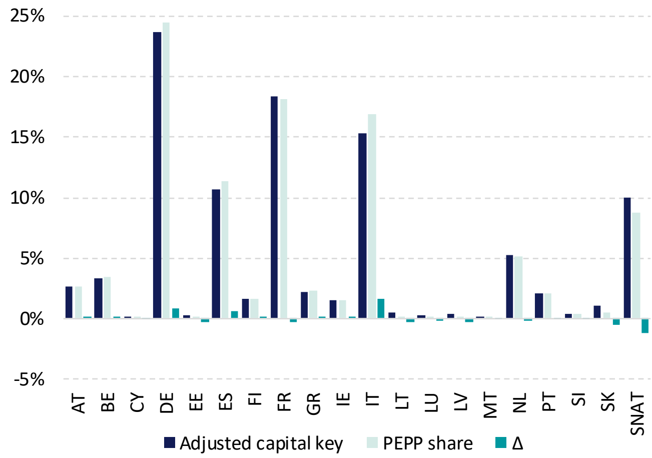
Breakdown of public sector securities under the PEPP

Jurisdiction	Holdings (in EURm)	Adj. distribution key[1]	PEPP share	Deviations from the adj. distribution key[2]	ø time to maturity (in years)	Market average[3] (in years)	Difference (in years)
AT	43,980	2.6%	2.6%	0.0%	7.9	7.1	0.8
BE	56,797	3.3%	3.4%	0.1%	6.6	9.1	-2.5
CY	2,633	0.2%	0.2%	0.0%	8.6	8.5	0.1
DE	408,941	23.7%	24.6%	0.8%	6.3	6.8	-0.4
EE	256	0.3%	0.0%	-0.2%	8.2	6.6	1.6
ES	189,664	10.7%	11.4%	0.7%	7.7	7.6	0.1
FI	28,183	1.7%	1.7%	0.0%	6.8	8.0	-1.2
FR	302,287	18.4%	18.1%	-0.2%	8.0	7.6	0.4
GR	38,504	2.2%	2.3%	0.1%	8.7	9.5	-0.7
IE	25,532	1.5%	1.5%	0.0%	9.2	9.3	-0.1
IT	281,026	15.3%	16.9%	1.6%	7.1	6.9	0.1
LT	3,215	0.5%	0.2%	-0.3%	10.3	9.9	0.4
LU	1,833	0.3%	0.1%	-0.2%	6.5	6.2	0.3
LV	1,887	0.4%	0.1%	-0.2%	8.7	8.9	-0.2
MT	610	0.1%	0.0%	-0.1%	11.1	9.2	1.9
NL	85,172	5.3%	5.1%	-0.2%	7.8	8.4	-0.6
PT	34,742	2.1%	2.1%	0.0%	6.8	7.2	-0.3
SI	6,499	0.4%	0.4%	0.0%	9.3	9.3	-0.1
SK	7,966	1.0%	0.5%	-0.6%	8.9	8.3	0.6
SNAT	145,950	10.0%	8.8%	-1.2%	10.3	8.5	1.8
Total / Avg.	**1,665,676**	**100.0%**	**100.0%**	**0.0%**	**7.6**	**7.5**	**0.1**

Distribution of public sector assets by jurisdiction



Deviations from the adjusted distribution key



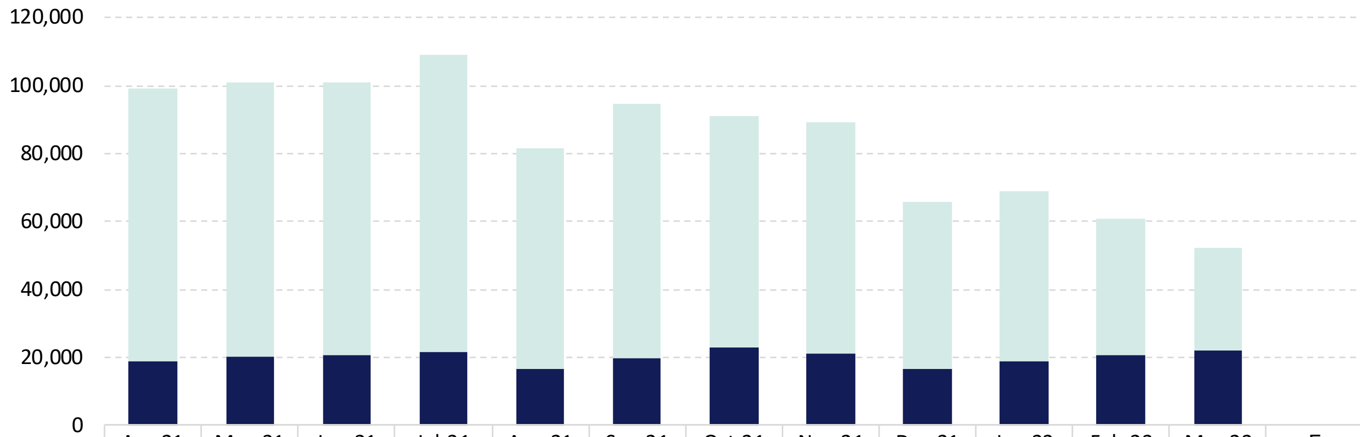
[1] Based on the ECB capital key, adjusted to include supras [2] Based on the adjusted distribution key
[3] Weighted average time to maturity of the bonds eligible for purchasing under the PEPP
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Aggregated purchase activity under APP and PEPP

Holdings (in EURm)

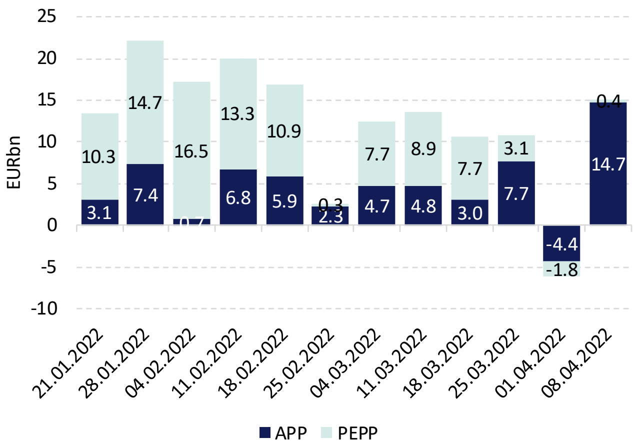
	APP	PEPP	APP & PEPP
Feb-22	3,162,920	1,687,862	4,850,782
Mar-22	3,179,056	1,718,076	4,897,132
Δ	+21,943	+30,214	+52,157

Monthly net purchases (in EURm)

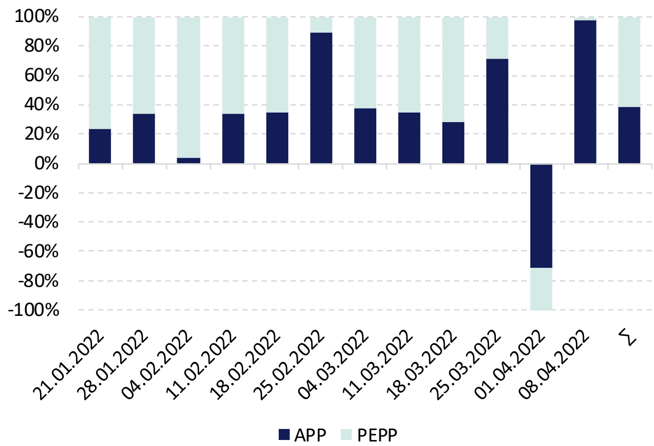


	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	∑
∑	99,036	100,841	100,808	109,154	81,799	94,710	90,872	89,245	65,971	68,951	60,882	52,157	1,014,42
PEPP	80,118	80,700	80,168	87,557	65,050	75,051	67,855	68,045	49,375	50,113	40,184	30,214	774,430
APP	18,918	20,141	20,640	21,597	16,749	19,659	23,017	21,200	16,596	18,838	20,698	21,943	239,996

Weekly purchases



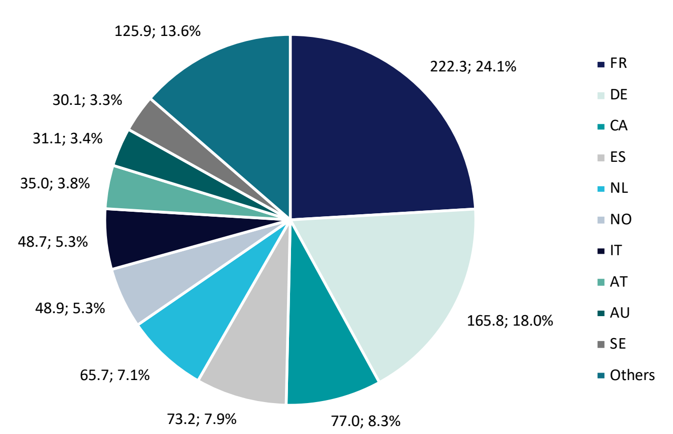
Distribution of weekly purchases



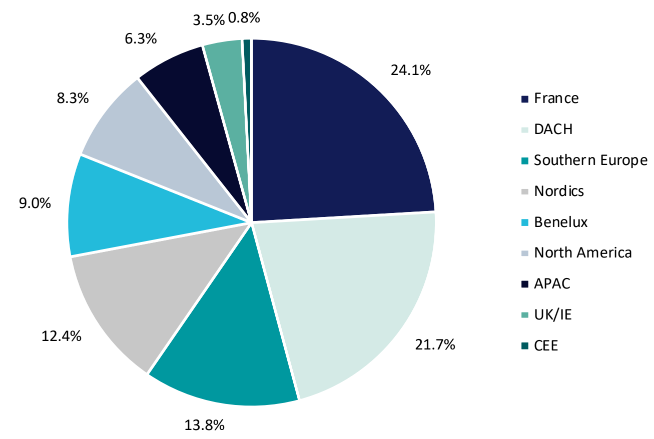
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Charts & Figures
Covered Bonds

EUR benchmark volume by country (in EURbn)



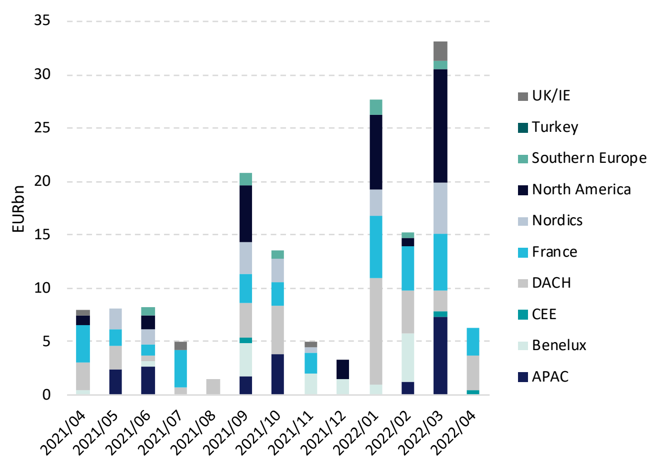
EUR benchmark volume by region (in EURbn)



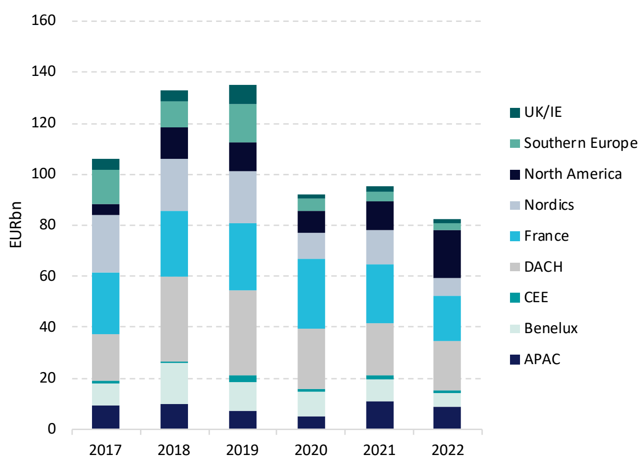
Top-10 jurisdictions

Rank	Country	Amount outst. (EURbn)	No. of BMKs	There of ESG BMKs	Avg. issue size (EURbn)	Avg. initial maturity (in years)	Avg. mod. Duration (in years)	Avg. coupon (in %)
1	FR	222.3	213	11	0.94	10.0	5.6	0.80
2	DE	165.8	240	18	0.63	8.4	4.5	0.41
3	CA	77.0	60	0	1.24	5.9	3.2	0.25
4	ES	73.2	59	5	1.13	11.8	3.8	1.78
5	NL	65.7	67	0	0.93	11.6	7.6	0.71
6	NO	48.9	58	9	0.84	7.4	3.9	0.35
7	IT	48.7	58	2	0.81	9.3	4.3	1.25
8	AT	35.0	64	2	0.54	9.8	6.2	0.55
9	AU	31.1	31	0	1.00	8.4	4.0	0.92
10	SE	30.1	36	0	0.83	7.5	3.3	0.42

EUR benchmark issue volume by month

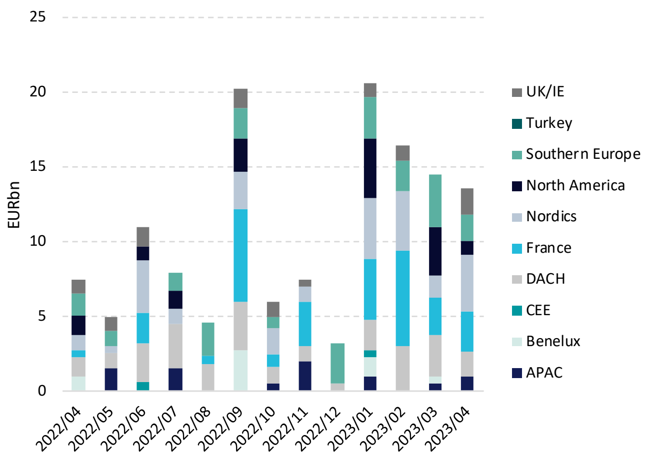


EUR benchmark issue volume by year

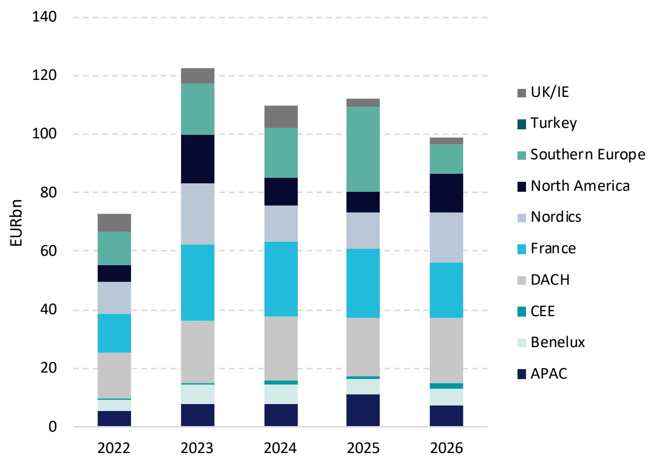


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

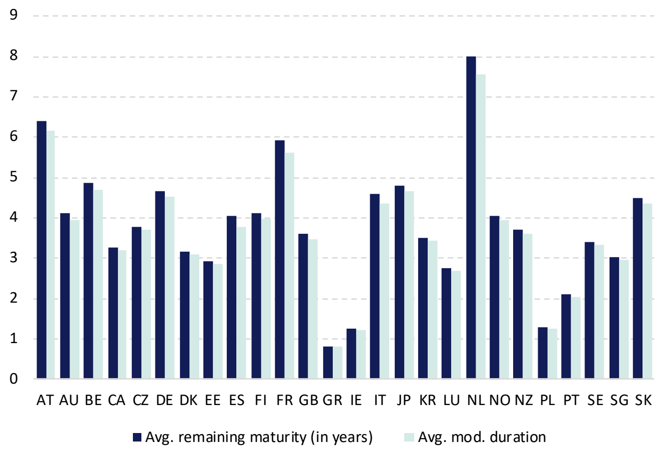
EUR benchmark maturities by month



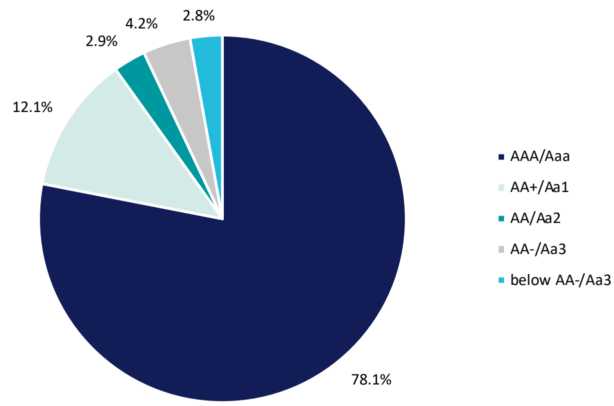
EUR benchmark maturities by year



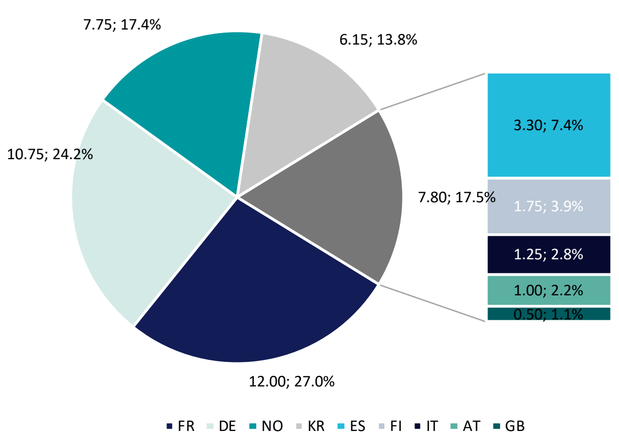
Modified duration and time to maturity by country



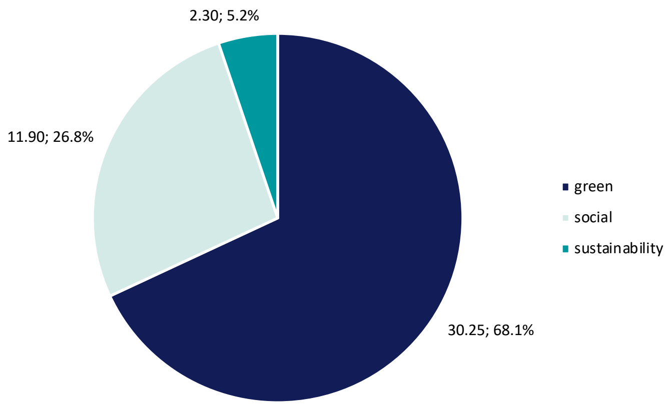
Rating distribution (volume weighted)



EUR benchmark volume (ESG) by country (in EURbn)

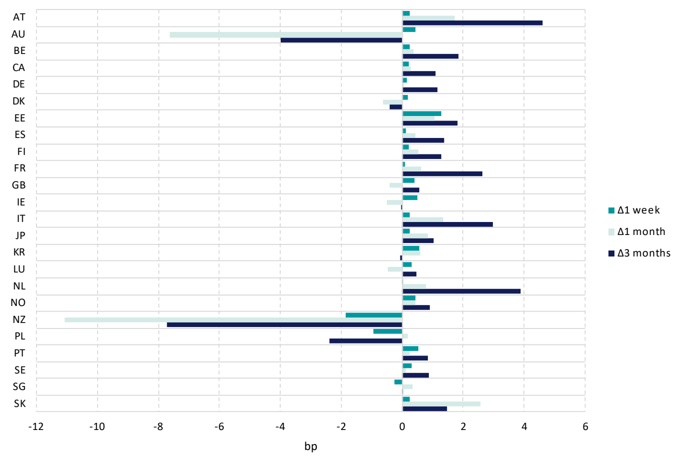


EUR benchmark volume (ESG) by type (in EURbn)

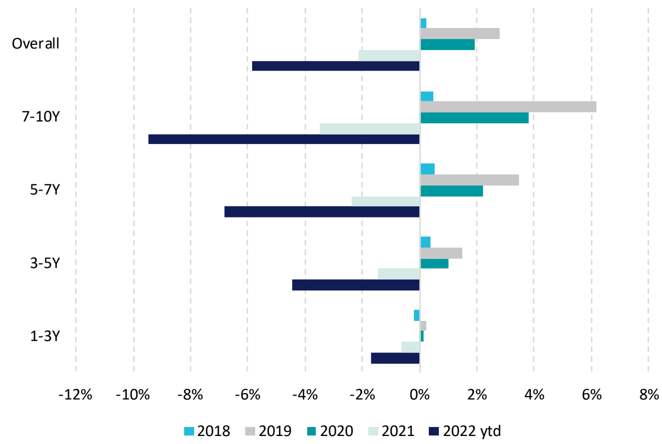


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

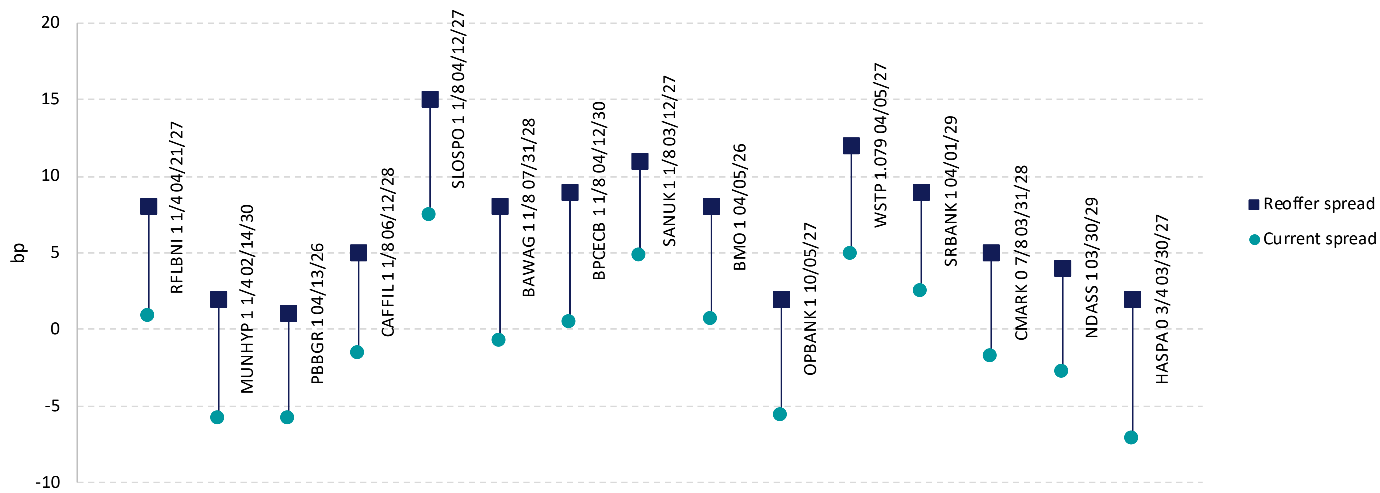
Spread development by country



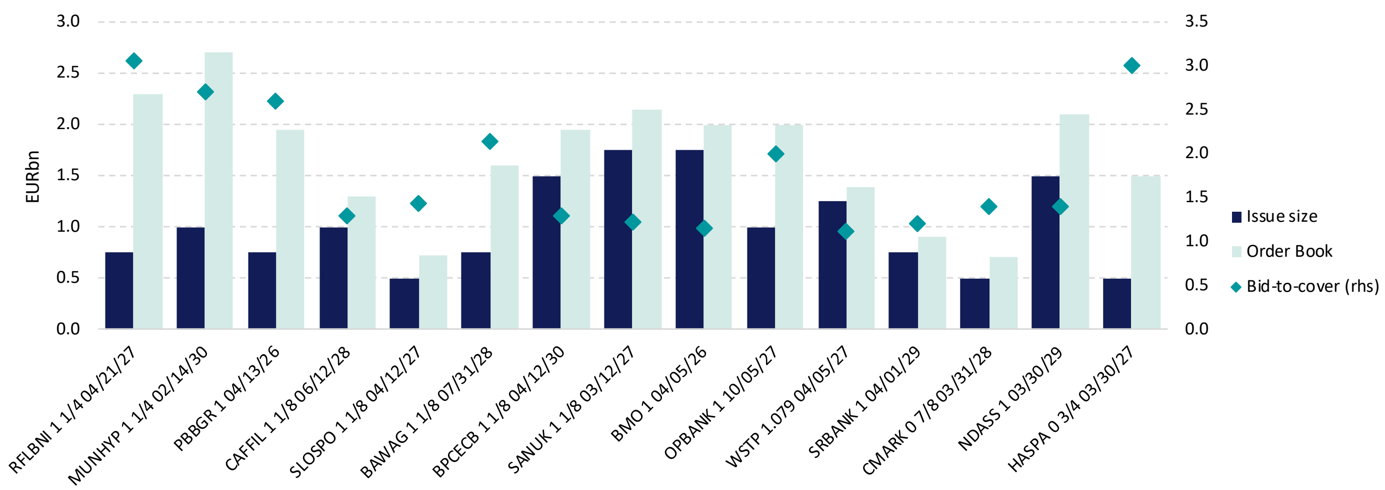
Covered bond performance (Total return)



Spread development (last 15 issues)



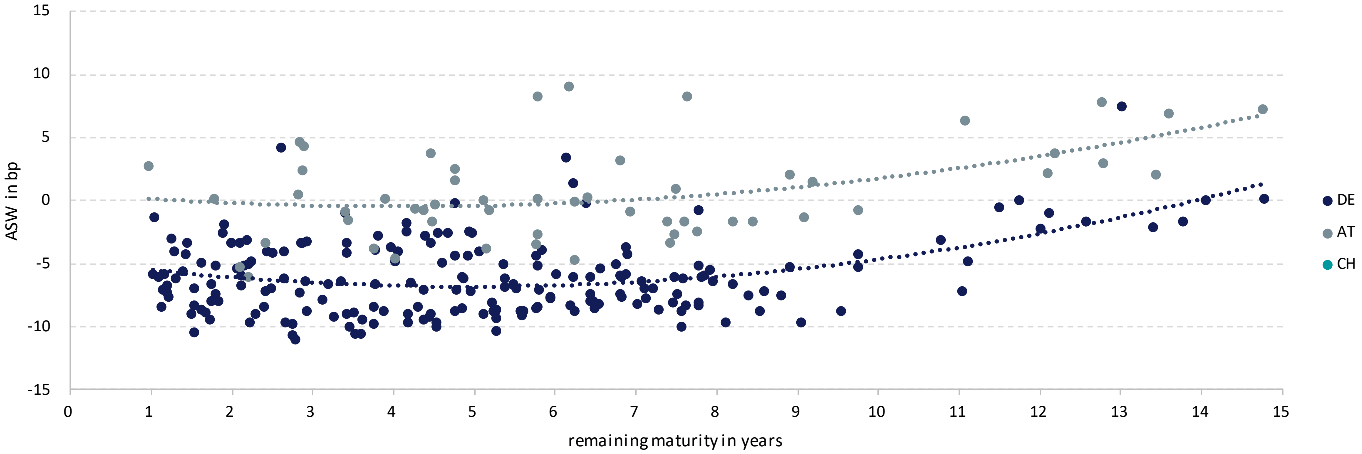
Order books (last 15 issues)



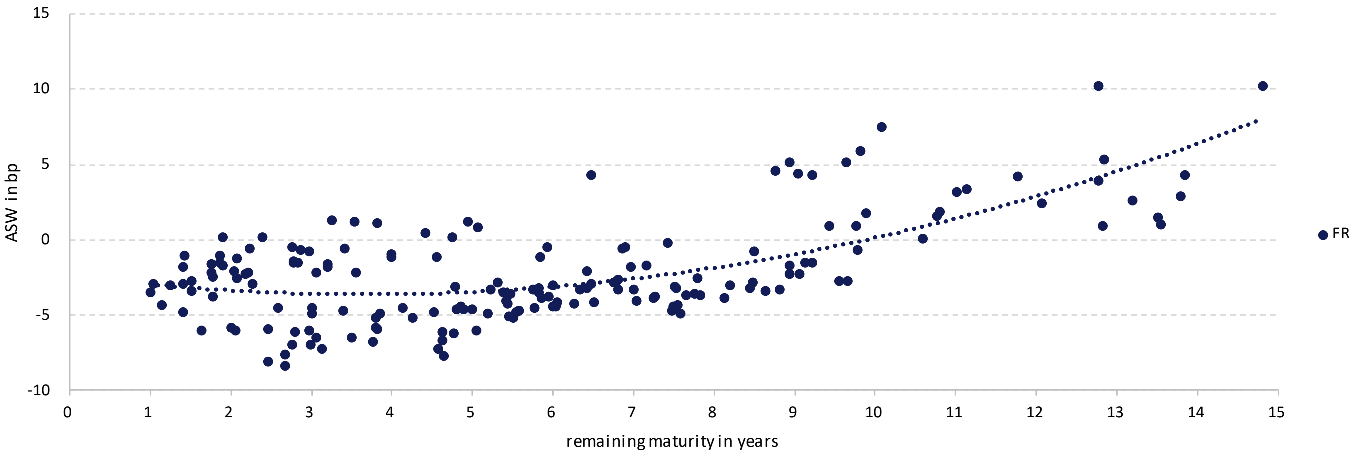
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

Spread overview[1]

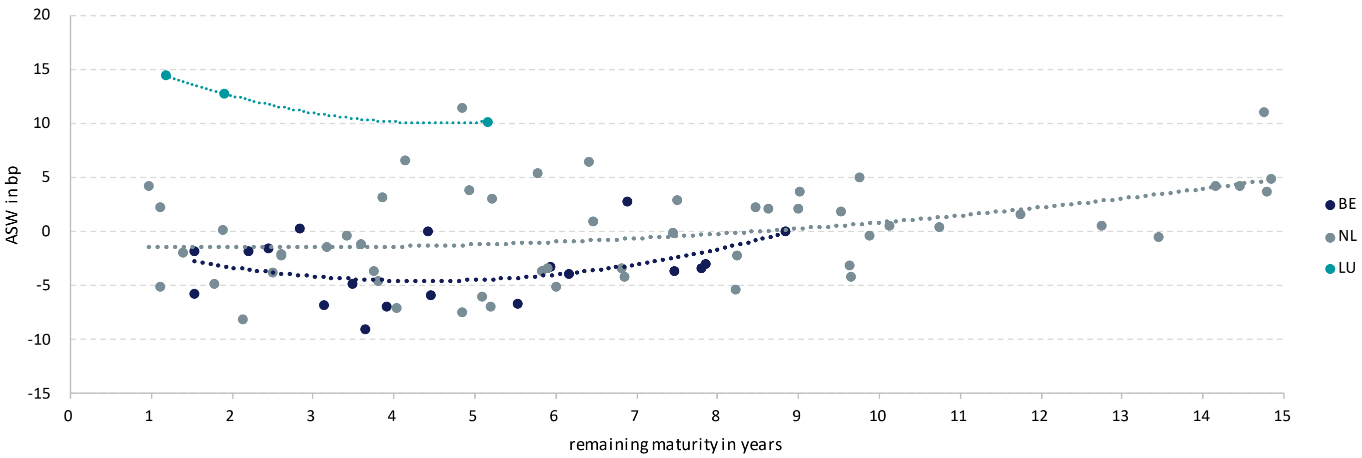
DACH



France

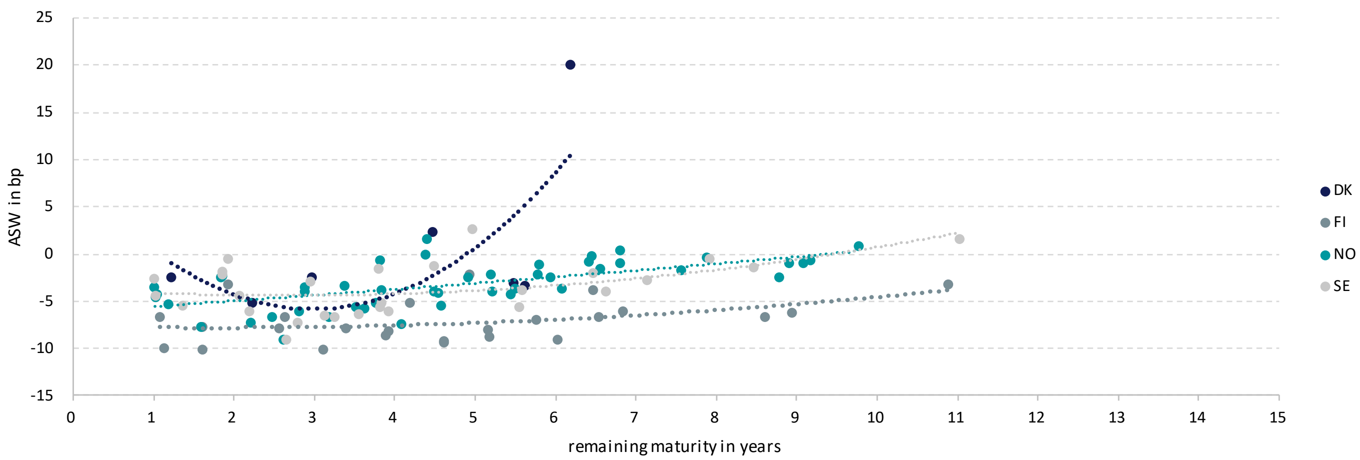


Benelux

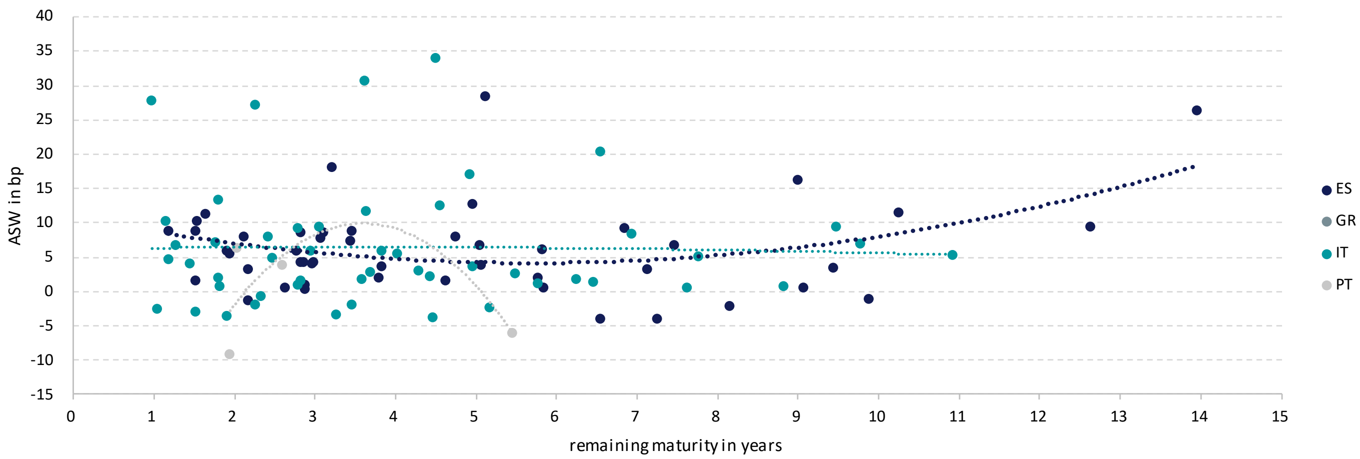


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research [1]Time to maturity 1 ≤ y ≤ 15

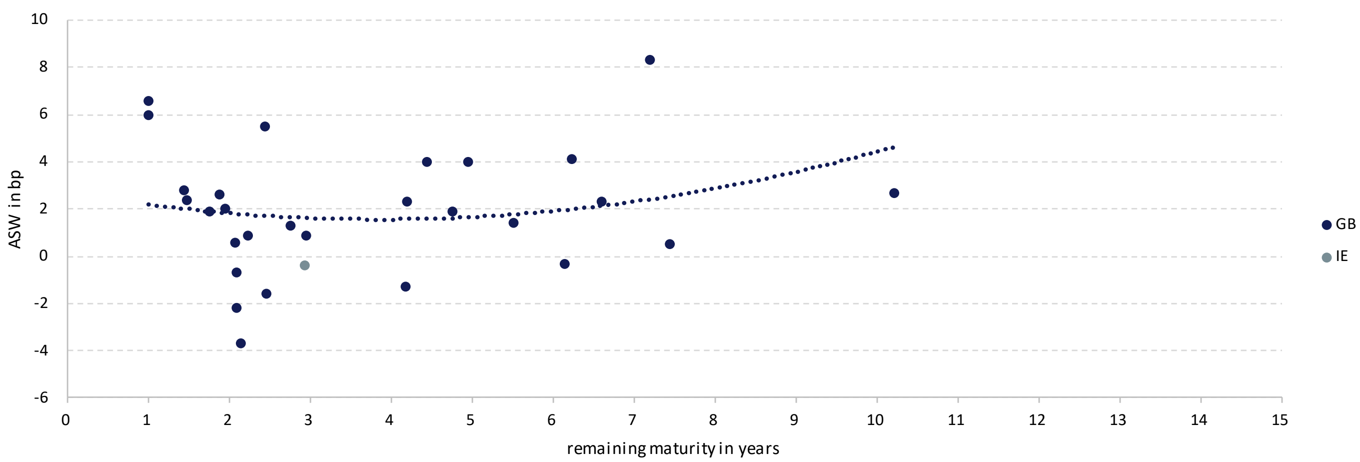
Nordics



Southern Europe

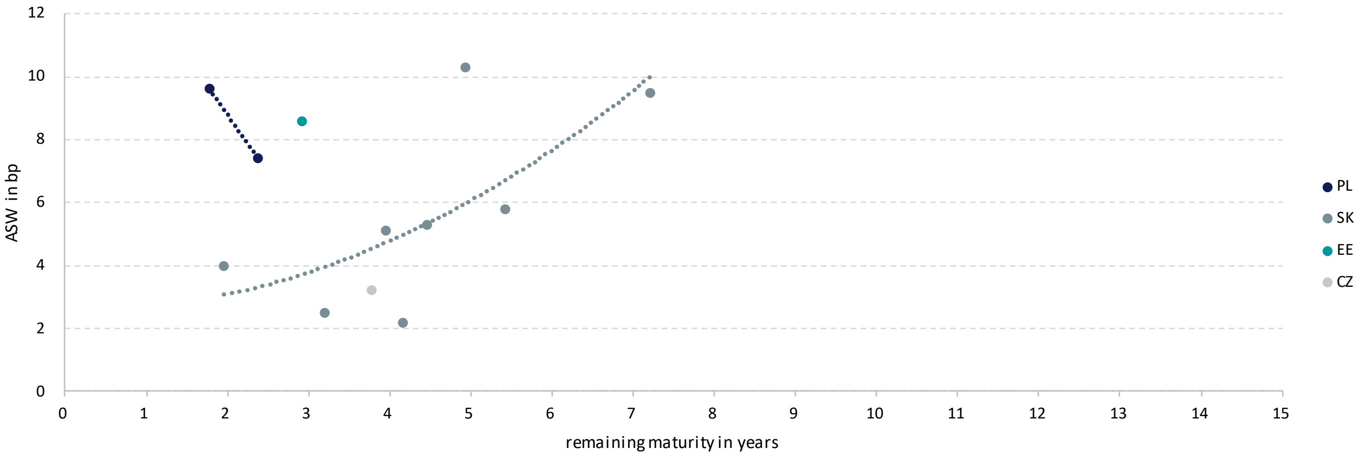


UK/IE

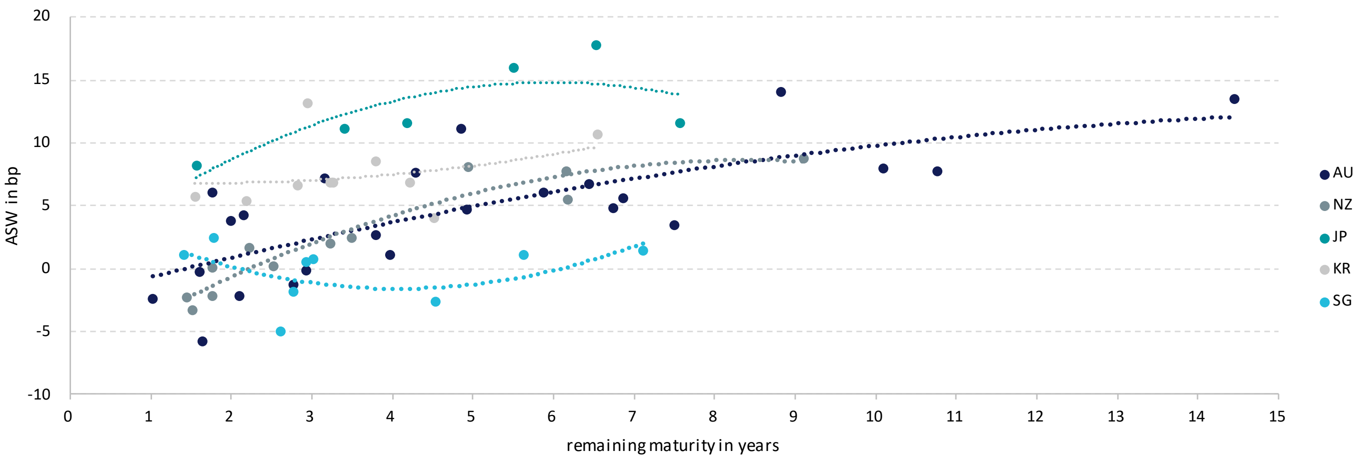


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

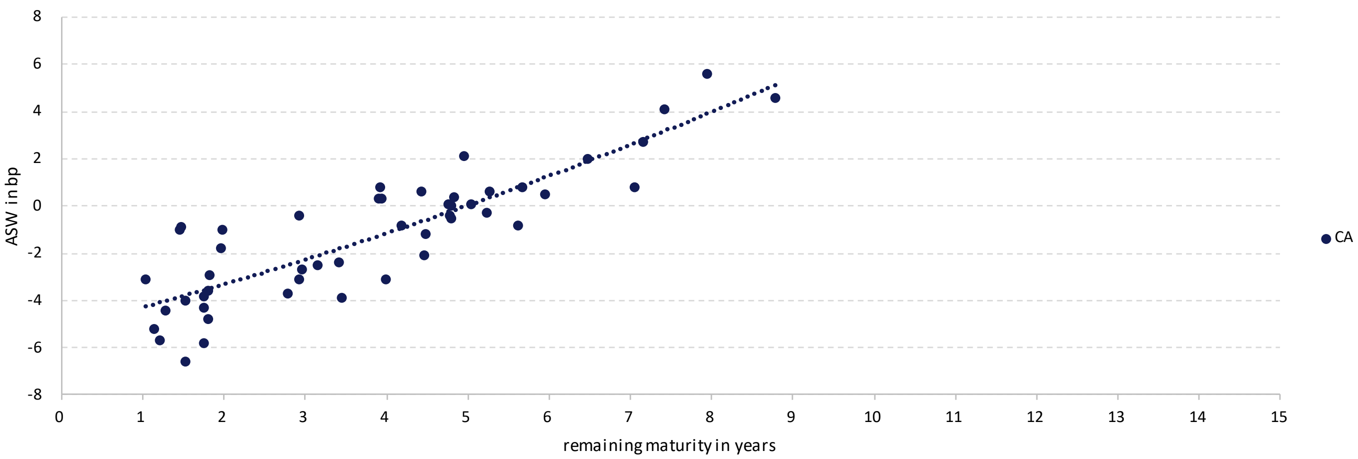
CEE



APAC



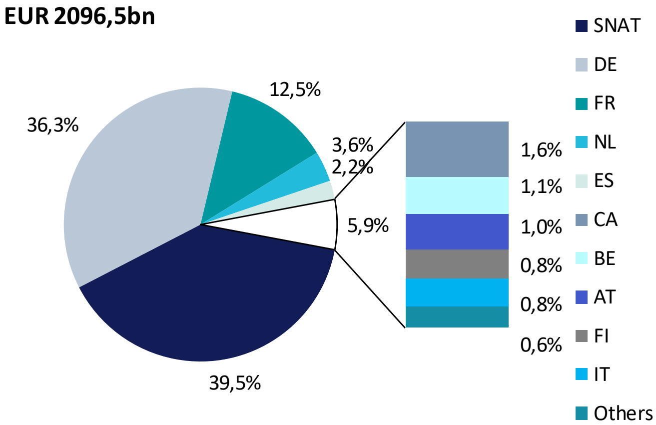
North America



Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

Charts & Figures
SSA/Public Issuers

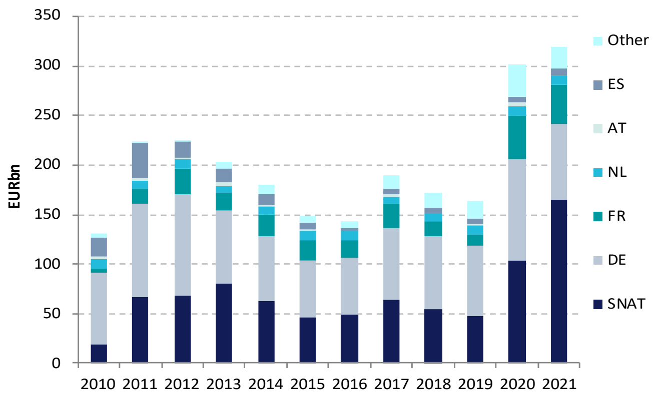
Outstanding volume (bmk)



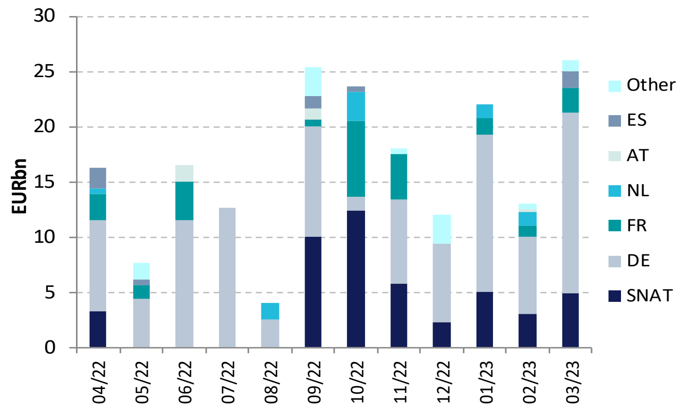
Top 10 countries (bmk)

Country	Vol. (€bn)	No. of bonds	ØVol. (€bn)	Vol. weight. ØMod. Dur.
SNAT	827,3	203	4,1	8,6
DE	761,7	574	1,3	6,6
FR	261,3	182	1,4	6,5
NL	75,7	69	1,1	6,7
ES	46,7	59	0,8	4,9
CA	33,2	22	1,5	5,2
BE	22,7	26	0,9	13,0
AT	21,2	23	0,9	4,6
FI	17,5	21	0,8	5,9
IT	16,8	20	0,8	5,2

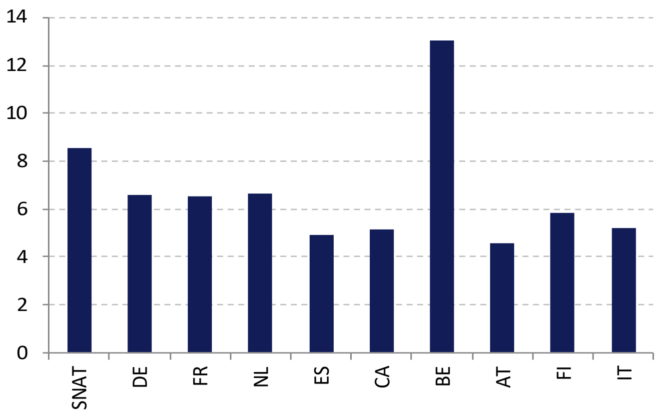
Issue volume by year (bmk)



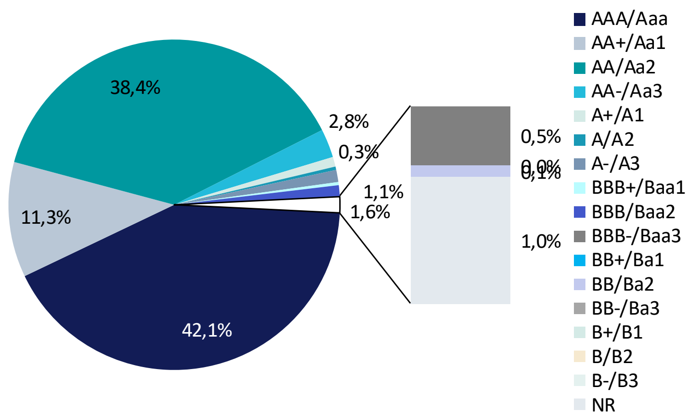
Maturities next 12 months (bmk)



Avg. mod. duration by country (vol. weighted)

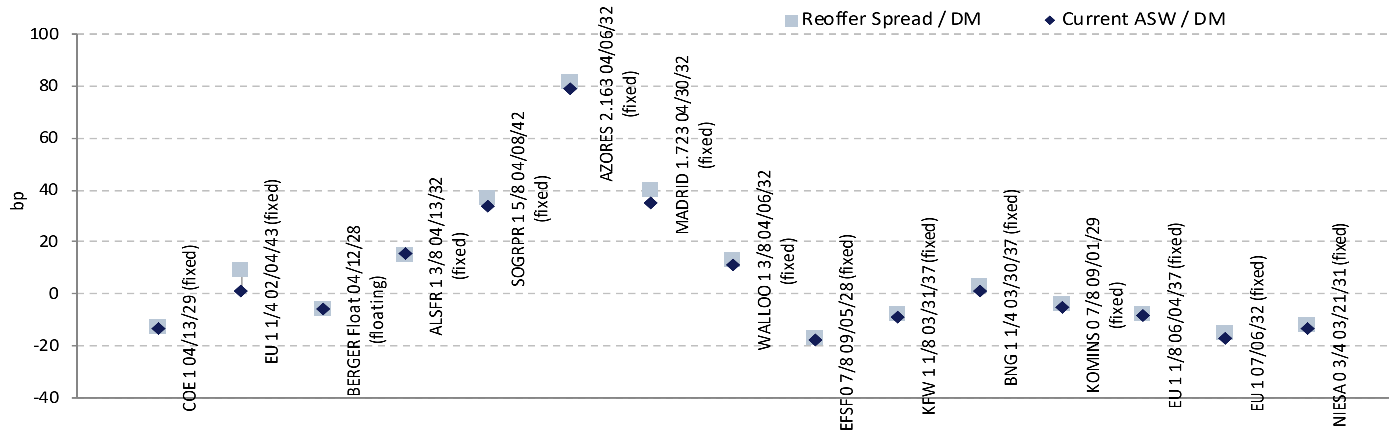


Rating distribution (vol. weighted)

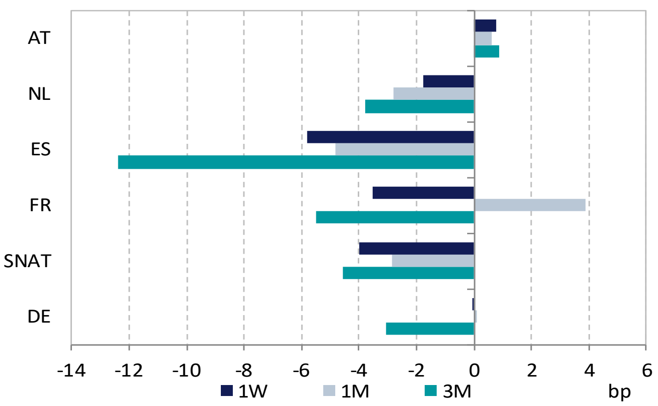


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

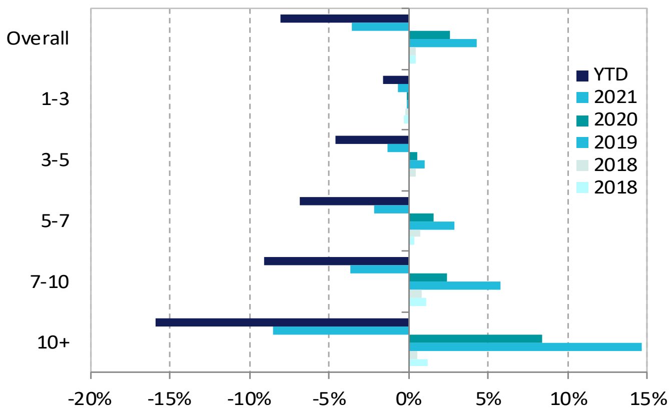
Spread development (last 15 issues)



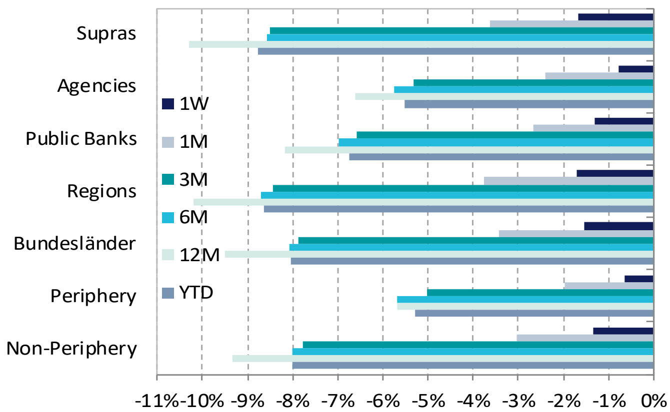
Spread development by country



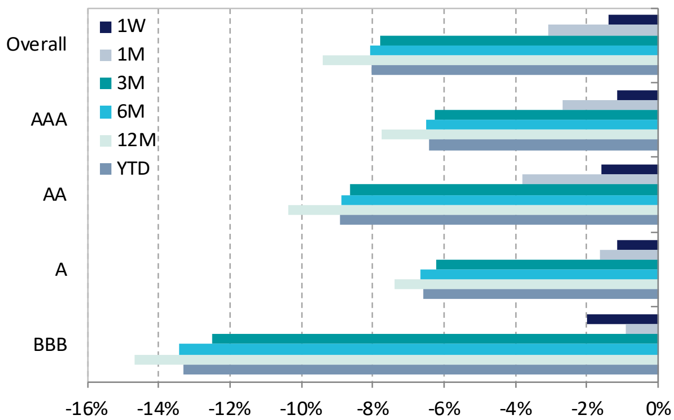
Performance (total return)



Performance (total return) by regions

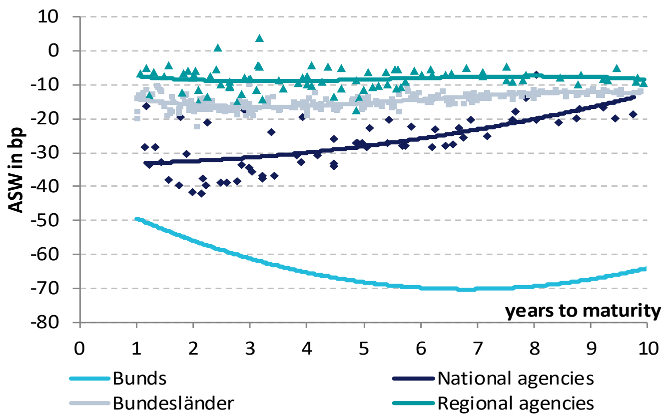


Performance (total return) by rating

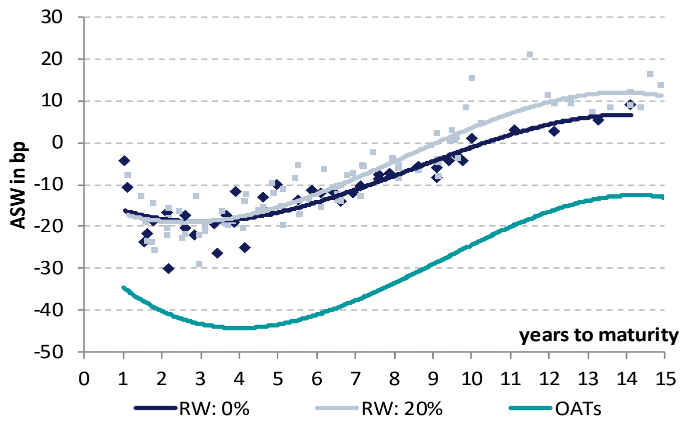


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

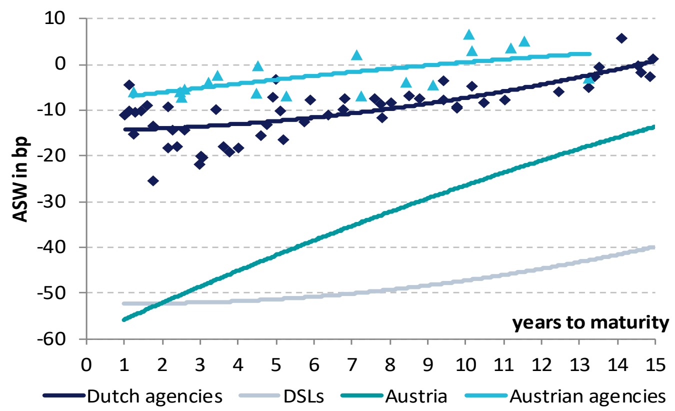
Germany (by segments)



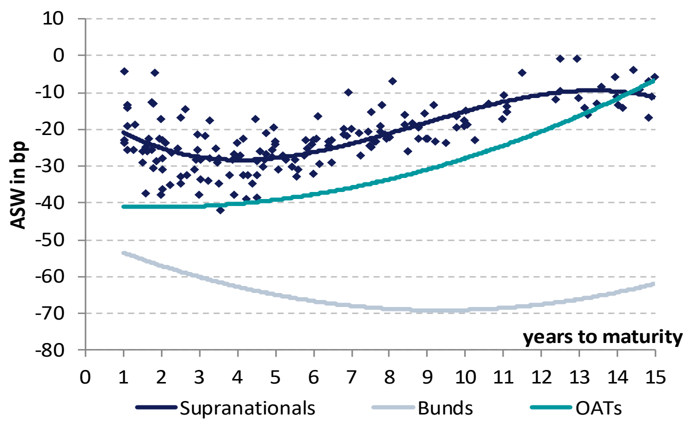
France (by risk weight)



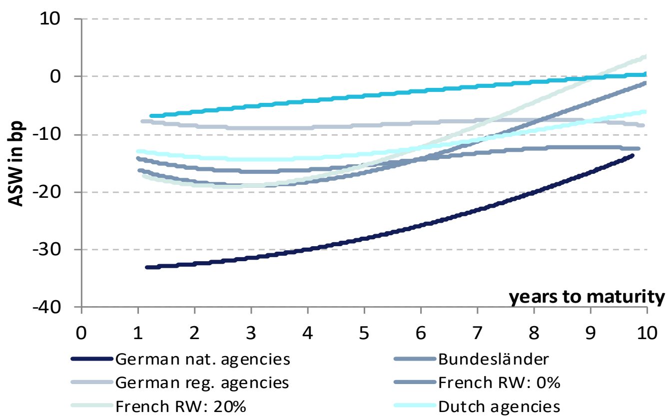
Netherlands & Austria



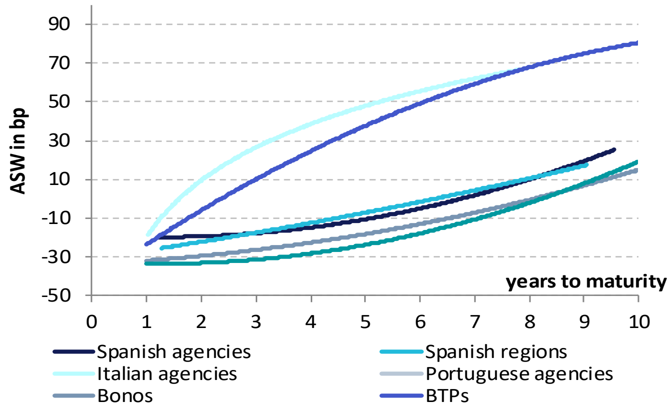
Supranationals



Core



Periphery



Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

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Appendix
Overview of latest Covered Bond & SSA View editions

Publication	Topics
13/2022 ♦ 06 April	▪ ECB adjusts order behaviour in time for the new quarter ▪ United Kingdom: spotlight on the EUR benchmark segment ▪ Issuer Guide SSA 2022: the Nordic agency market
12/2022 ♦ 30 March	▪ An overview of the market for ESG covered bonds ▪ Issuer Guide SSA 2022: the Austrian agency market
11/2022 ♦ 23 March	▪ ESG update 2022 in the spotlight ▪ The ratings approach of DBRS
10/2022 ♦ 16 March	▪ What does the recent ECB meeting mean for covered bonds? ▪ Credit authorisations of the German Laender for 2022
09/2022 ♦ 09 March	▪ Transparency requirements § 28 PfandBG Q4/2021 ▪ Issuer Guide SSA 2022: The Dutch agency market
08/2022 ♦ 02 March	▪ ECB: Not everyone can get their act together at a turning point ▪ Welcome expansion of the covered bond ESG universe: Banco BPM green covered bond ▪ War in Ukraine and sanctions on Russia: spotlight on the European banking landscape
07/2022 ♦ 23 February	▪ ECB banking regulator also views the residential real estate market as a potential risk driver for banks ▪ Development of the German property market ▪ Beyond Bundeslaender: Paris metropolitan area (IDF and VDP)
06/2022 ♦ 16 February	▪ PEPP reporting: Finish line in sight, but no photo finish expected ▪ DZ HYP issues inaugural green Pfandbrief: ESG market in Germany continues its growth trajectory
05/2022 ♦ 09 February	▪ ECB: full speed, throttling, U-turn – or wrong turn? ▪ Insurance companies as covered bond investors: the bank-insurer nexus
04/2022 ♦ 02 February	▪ Covered Bonds – Review of January 2022: a reversion to old patterns does not always have to be bad ▪ SSA – New year, new hope? Less oomph to kick off the new year
03/2022 ♦ 26 January	▪ ECB preview: 10y Bund spotted in positive terrain. What's next? ▪ EUR benchmark segment in Canada: our supply forecast already null and void
02/2022 ♦ 19 January	▪ Spotlight on the EUR benchmark segment: a look at the covered bond markets in Belgium and the Netherlands ▪ 24th meeting of the Stability Council (Dec. 2021)
01/2022 ♦ 12 January	▪ Covered Bonds Annual Review 2021 ▪ The Moody's covered bond universe – an overview ▪ SSA Annual Review 2021: Record after record
40/2021 ♦ 15 December	▪ ECB preview: End of PEPP, booster for APP?! ▪ Our view of the covered bond market in 2022 ▪ SSA Outlook 2022: Public sector caught between ECB & COVID
39/2021 ♦ 08 December	▪ The ECB, monetary policy and covered bond market: Hypothetical "What if...?" considerations ▪ The Moody's rating approach

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Covered Bond Research

NORD/LB:
SSA/Public Issuer Research

Bloomberg:
RESP NRDR <GO>

Appendix
Publication overview

Covered Bonds:

Issuer Guide Covered Bonds 2021

Risk weights and LCR levels of covered bonds (updated semi-annually)

Transparency requirements §28 PfandBG (quarterly update)

Covered bonds as eligible collateral for central banks

SSA/Public Issuers:

Issuer Guide – German Laender 2021

Issuer Guide – Canadian Provinces & Territories 2020

Issuer Guide – Supranationals & Agencies 2019 (update planned for 2022)

Issuer Guide – Down Under 2019

Fixed Income Specials:

ESG-Update 2022

Face-saving ECB decision: Hawks have won – for now

ECB decision: PEPP benched for now, APP comes in as Point Guard

ECB holds course, but ups the ante – PEPP running until 2022

ECB launches PEPP (Pandemic Emergency Purchase Programme)

Appendix
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Sales MM/FX	+49 511 9818-9460
Sales Europe	+352 452211-515

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Financials	+49 511 9818-9490
Governments	+49 511 9818-9660
Laender/Regionen	+49 511 9818-9550
Frequent Issuers	+49 511 9818-9640

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Origination Corporates	+49 511 361-2911

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Asset Finance	+49 511 361-8150

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Liquidity Management	+49 511 9818-9620 +49 511 9818-9650

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Additional information
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None

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Issuer / security	Date	Recommendation	Bond type	Cause